

## **SRIC**

**Smart Roof Insulation Contracting LLC** 





Roof Combo, Wet Area, Sheds & **Epoxy Coating** 



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Sajaya 7, Dubai, UAE



www.sric.ae











## **GENERAL**

### **INFORMATION**

Thermal Insulation is one of the methods that is internationally accredited and used in saving the consumption of electrical power. It has been proved that the thermal insulation is the best solution as it reduces the consumption of electricity by 40%. This gives economical revenue to the country, investors as well as the consumers.

Waterproofing is formulation of internal or external membrane which is designed to prevent water from entering or escaping the concrete. Internal membranes are created with waterproofing admixtures, however external membranes are applied to the surface of the concrete nearly always on the positive side.



Water is most destructive weathering element of concrete structures; water continues to damage or completely destroy more buildings and structures than natural disasters. Waterproofing techniques preserve a structure integrity and usefulness through an understanding of natural forces and their effect during life cycle.

Combo Roof System is a comprehensive system comprising of waterproofing, thermal insulation and finishing of the roof. This unique system is technically advanced fast curing.

This system provides a manufacturer's Guarantee of 25 Years against any leakage. The system meets all the latest thermal insulation standards and regulations in UAE and is accepted by all major property developers, consultants and contractors.

# TABLE OF CONTENT

Introduction Systems	04
Comparison	05
Organization Chart	06
Trade License	07 - 10
DCL Certificate	11 - 14
Method Statement	15
System Drawings	16- 17
Material Technical	18 - 46
Applicator Certificate	47 - 49
Project List	50 - 52
Quality Statement	53 - 60
HSE Policy	61 - 79

Phone: +971 50 224 0928 / +971 50 224 0925

## INTRODUCTION

We, **Smart Roof Insulation Contracting** having the honour of your attention to take this opportunity and introduce that we are specialized Roofing Contractor for Waterproofing & Heat Insulation system in UAE.

We are a committed & professional team. Our experienced workforce and equipment are capable of using the latest technologies to provide quick solutions with a lifetime Guarantee of 25 Years.

Smart Roof Insulation spray applied polyurethane foam Technology System with Bayer Germany and FOSROC materials internationally approved cementatious & Decorative Waterproofing coloured Top Coat.



### **Advantage of using Smart Roof Insulation System:**

- 1. Cost Effective Smart Roof Insulation System application, repair and maintenance is seamless and easy, allowing a lesser, immediate and long term investment.
- 2. Double Layered Waterproofing System Smart Roof Insulation System due to its double layered monolithic system and its rigid close cell construction in the foam forms an impermeable waterproofing layer ensuring a 100% no water leakage.
- **3. Conserve Electricity** Smart Roof Insulation System is based on the latest polyurethane technology keeping the heat out reducing the use of air conditioners which in turn save up to 40% electricity bill.
- **4. Comfort** Smart Roof Insulation System efficient insulation means keeping heat out and your home & buildings cool, making it a must have system for hot & arid environment like UAE.

### **OUR SERVICES & SOLUTION**

We are Smart Roof Insulation contracting a specialized service provider for COMBO WATERPROOFING SYSTEM & SANDWICH PANELS/METAL WATERPROOFING. We are also experts of Wet Area Waterproofing that includes the waterproofing and heat insulation of toilets, kitchen & balconies.

Combo Roof System is a system that protects the roof area by application of polyurethane foam covered with rubberized bitumen coat with additional protection layers of screed, sealants and top coat and it is most suitable solution for the environment of UAE

### SYSTEMS COMPARISON

COMPARISON & EVALUTION OF MEMBRANE WATERPROOFING SYSTEM \ COMBO ROOF WATERPROOFING		
Membrane System	Combo Roof Waterproofing System	
No DM System Evaluation	System Evaluation by DM	
Non-availability of any comprehensive roofing system applied and installed by a single manufacturer complying with the thermal insulation standards by Dubai Municipality.	Combo Roof is a comprehensive roofing system applied & installed by a single manufacturer, made to suit the thermal insulation standards set by Dubai Municipality.	
Heat Insulation & Waterproofing with Joints	Joint Free Insulation & Waterproofing	
Torch Applied waterproofing membranes with 10cm overlap joints always have the tendency to fail in their joints under lateral strain.	Monolithic layer without any joints can ensure complete protection against any possible leakage.	
10 Years' Guarantee	25 Years' Guarantee	
Life of a building is not just ten years. Then why should we consider and inferior system while constructing a building knowingly that the cost of replacement is more than double after 10 years?	Our Guarantee is based on 20 Years of applied research on buildings done, using combo-roof system and past performance record of two decades.	

# ORGANIZATION CHART



At SRI Contracting, we are proud of our integrity, professionalism and commitment towards excellence. Our staff is experienced, reliable and detail-oriented.





We provide outstanding services and unsurpassed quality in any project we take over, irrespective of the size and complexity involved in it. We completely stand by our services and we are sure that you will be fully satisfied with our final result.

SRI Contracting combines innovative technologies and time-tested products to provide reliable waterproofing solutions to protect the roof in Smarter Way.

# TRADE LICENSE







الشكل القانوني

### رخصة تجاربة **Commercial License**

تفاصيل الرخصة / License Details

رقم الرخصة License No. 1021507

> اسم الشركة سمارت رووف لتركيب المواد العازلة

**Company Name** SMART ROOF INSULATION CONTRACTING

> الإسم التجارى سمارت رووف لتركيب المواد العازلة

**Trade Name** SMART ROOF INSULATION CONTRACTING

971-50-9636276

شركة ذات مسؤولية محدودة - الشخص الواحد (ذ.م.م.) Legal Type Limited Liability Company - Single Owner(LLC - SO)

**Expiry Date** 11/01/2024 تاريخ الإنتهاء **Issue Date** تاريخ الإصدار 12/01/2022

D&B D-U-N-S® الرقم العالمي Main License No. 0 1021507 رقم الرخصة الام

DCCI No. عضوية الغرفة Register No. 1889928 رقم السجل التجارى 440753

الاطراف / License Members

حصص / Share	الصفة / Role ال	الجنسية / Nationality	Name / الإسم	رقم الشخص/.No
100.00%	Shares Owner / مالك	باکستان / Pakistan	عامر رؤوف عبدالرؤوف	1054883
	حصص		AMER RAUF ABDUL RAUF	
	مدیر / Manager	باکستان / Pakistan	عامر رؤوف عبدالرؤوف	1054883

AMER RAUF ABDUL RAUF

نشاط الرخصة التجارية / License Activities

**Insulation Contracting** تركيب المواد العازلة في الأبنية والمنشآت المدنية

> العنوان / Address P.O. Box صندوق بريد Parcel ID 616-2410

فاكس Fax No رقم القطعة **Mobile No** هاتف متحرك

تليفون

ملك سالم على سلطان السبوسي- ند الشبا الثالثة-بردبي - B مكتب119

الملاحظات / Remarks

البريد الإلكتروني / Email

19/01/2023 15:53 14792096 **Print Date** تاريخ الطباعة Receipt No. رقم الإيصال

THE EMIRATES

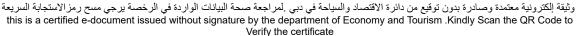
**Phone No** 

يمكنك الأن تجديد رخصتك التجارية من خلال الرسائل النصية القصيرة، أرسل رقم الرخصة إلى 6969 (دو/اتصالات) للحصول على اذن الدفع.

Now you can renew your trade license by sending a text message (SMS). Send your trade license number to 6969 (Du/ Etisalat) to receive payment voucher.

Get **FREE** access to Zoho One for the first year على زوهو ون للسنة الاولى









# شهادة شهر قيد شركة في السجل التجاري Commercial Register

تفاصيل القيد / Register Details

رقم القيد Register No. 1889928 رقم الرخصة الأم 1021507

سمارت رووف لتركيب المواد العازلة

Name SMART ROOF INSULATION CONTRACTING

الشكل القانوني شركة ذات مسؤولية محدودة - الشخص الواحد (ذ.م. Limited Liability Company - Single Owner(LLC

SO)

 Expiry Date
 11/01/2024
 Peg. Date
 19/01/2023

 تاريخ الإصدار
 19/01/2023

D&B D-U-N-S ® الرقم العالمي 0

تفاصيل راس المال / Capital Details

 Nominated
 -1.0000

 Paid
 300,000.0000

 No. of Shares
 300.0000

 Currency
 UAE Dirhams

عنوان الرخصة / License Address

مكتبB 119 ملك سالم على سلطان السبوسى- ند الشبا الثالثة بردبي

عنوان السجل التجاري / Commerce Address

مكتبB 119 - ملك سالم على سلطان السبوسي- ند الشبا الثالثة-بردبي

أنشطة السجل / Register Activities

تركيب المواد العازلة في الأبنية والمنشآت المدنية

Insulation Contracting

رقم الإيصال Receipt No. 14792096 وقم الإيصال 15:53 Receipt No. 14792096

الإمسارات THE EMIRATES يمكنك الأن تجديد رخصتك التجارية من خلال الرسائل النصية القصيرة، أرسل رقم الرخصة إلى 6969 (دو/اتصالات) للحصول على اذن الدفع

Now you can renew your trade license by sending a text message (SMS). Send your trade license number to 6969 (Du/ Etisalat) to receive payment voucher.

Get FREE access to Zoho One for the first year الحصل على زوهو ون مجاناً السنة الاولى



Zoho.com/de

### شهادة تسجيل العضوية **Membership Certificate**

License no.	1021507	1021507	رقم الرخصة
Membership no	. 440753	440753	رقم العضوية
Registration no.	1889928	1889928	رقم السجل التجاري
Trade Name	SMART ROOF INSULATION CONTRACTING	سمارت رووف لتركيب المواد العازلة	الاسم التجاري
Legal Status	Limited Liability Company - Sing	شركة ذات مسؤولية محدودة - الشخص	الشكل القانوني
Activity	Insulation Contracting	تركيب المواد العازلة في الأبنية والمنشآت المدنية	نوع النشاط
<b>Member Since</b>	12/01/2022	12/01/2022	تاريخ الإنتساب
<b>Date of Issue</b>	12/01/2022	12/01/2022	تاريخ الإصدار
<b>Expiry Date</b>	11/01/2024	11/01/2024	تاريخ الإنتهاء

#### Remarks

This certificate shall be invalid incase of any alteration without chamber's authorization

For online verification of this Certificate, please visit our website http://www.dubaichamber.ae/verify

غرفـــــة تـجــــــارة وصنــــاعــــــة دبـــي

Dubai Chamber of Commerce & Industry

الملاحظات

تعتبر هذه الشهادة لاغية في حال أي كشط أو تعديل عليها دون اعتماد ذلك من الغرفة

للتأكد من صحة بيانات الشهادة يرجى الرجوع إلى موقع الغرفة http://www.dubaichamber.ae/verify

e.O. Box 1457 - Dubai, U.A.E. | Tel (Within UAE) 800 CHAMBER (800 2426237) | Tel (Outside UAE) (+971) 4 2280000 ها تف Fax (+971) 4 2211646 فاكس customercare@dubaichamber.ae www.dubaichamber.ae

# DCLD CERTIFICATE





### CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality hereby attests that the product(s)

### In-situ Formed Sprayed PUR/PIR Thermal Insulation

(Details as per the attached Scope of Certification)

manufactured by:

### SMART ROOF INSULATION CONTRACTING SAJAYA 7 BUILDING, NAD AL SHIBA 3, DUBAI UAE

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

BS EN 14315-1: 2013

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-mentioned product(s).

ARIF AL MARZOOQI

Certification and Quality Control of Products Section Manager Dubai Central Laboratory Department-Dubai Municipality



Valid Until:

CL23020823 15/02/2024



Current Issue Date: 16/02/2023 Original Issue Date: 16/02/2023







# DUBAI CENTRAL LABORATORY DEPARTMENT DCLD-COPS PRODUCT CONFORMITY CERTIFICATION SCHEME

### SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL 23020823

Certificate Issued To: SMART ROOF INSULATION CONTRACTING

Sajaya 7 Building, Nad Al Shiba 3, Dubai, UAE.

Applicable Standard Specification: BS EN 14315-1:2013 – Thermal insulating product for

buildings- In-situ formed sprayed rigid Polyurethane (PUR)

and Polyisocyanurate (PIR) foam products.

Applicable Specific Rules: DM-DCLD-RD-DP21-2187 (IC) – Specific Rules for

Certification of In-situ Spray applied Thermal Insulation as per

BS EN 14315-1: 2013 Through Factory Assessment

S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
1	In-Situ Formed Sprayed Polyurethane (PUR) Foam Products CFC Free (See Note 3)	SMART ROOF	In-Situ Formed Sprayed Polyurethane (PUR) Foam  Apparent Density = 40 Kg/m³ (min)  Thickness = 35-150 mm  Thermal Conductivity: 0.024 w/mk @ 35°C & 60% Max  Dimensional stability: DS (TH) 2  Water Vapour Transmission: 25 min  Water Vapour Absorption: 0.06kg /m2 Max  Compressive Strength of 100 kPa

NOTE 1: This document forms an integral part of the Certificate of Product Conformity bearing the same certificate number.

NOTE 2: The above product shall bear the DCLD Conformity Mark.

NOTE 3: CFC Free as per declaration from the company, in compliance with 2020 Al Sa'fat Dubai Green Building System.





# DUBAI CENTRAL LABORATORY DEPARTMENT DCLD-COPS PRODUCT CONFORMITY CERTIFICATION SCHEME

### SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL 23020823

Original Issue Date : 16 February 2023

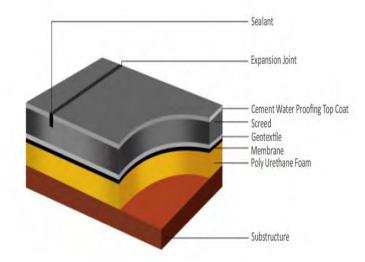
Current Issue Date : 16 February 2023

Valid Until : 15 February 2024

ARIF AL MARZOOQI

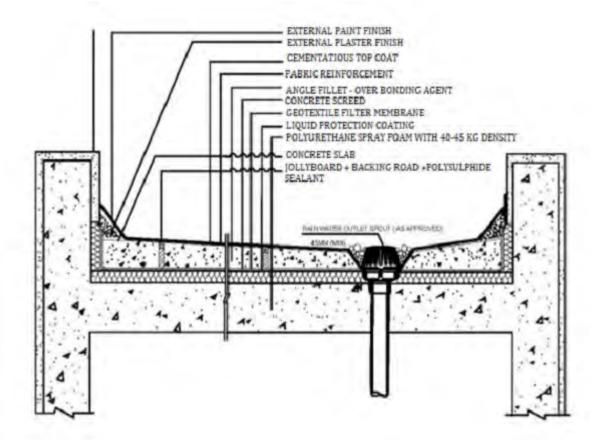
MANAGER
CERTIFICATION AND QUALITY CONTROL OF PRODUCTS SECTION

### **METHOD STATEMENT**

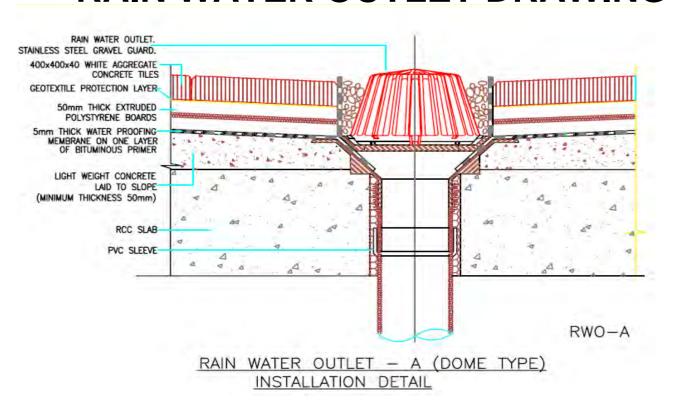


- 1. **Surface Preparation:** Cleaning of Dust & Debris from the roof area using compressed air.
- 2. **Polyurethane foam spray:** Supply and apply of polyurethane foam with density 40-45kg to achieve 0.30 U-Value as per Dubai Municipality regulations.
- 3. **Rubberized coating**: After Polyurethane foam spray. Rubberized coating from will be done by using brushes or rollers and after completely coating dry, water test can be done from min. 24 hours to max. 72 hours.
- 4. **Separation Layer:** Above the rubberized coating 120 gms/m<sup>2</sup> geo textiles alaf filter membrane will lay down as separation layer.
- 5. **Preparation of Panels:** On the geo textile the flexible board 2\*3 meter panels will be made in slopes for screed.
- 6. **Screed Casting:** Supply and application of a layer of ready mix screed to slope of with maximum average 80mm thick will be casted.
- 7. Filling Sealant into the Expansion Joints: After stability of screed the flexible board will be removed from the joints and filled with single component of sealant having the backing rod inside.
- 8. Cementatious Coating: Finally, the cementatious coating will be done with as protection and final finished layer to give attractive and smooth look on the roof top and it is ultraviolet exposed to the sun.

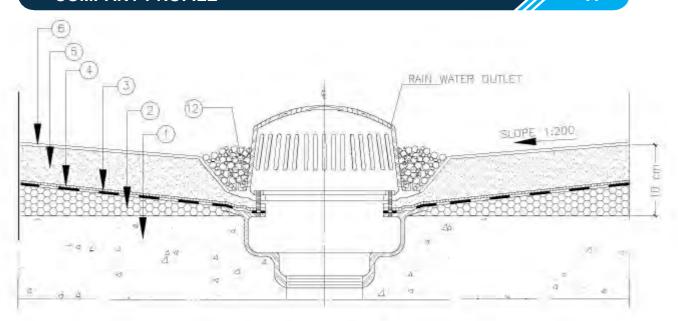
# **Section Drawing Roof Combo System**



## RAIN WATER OUTLET DRAWING

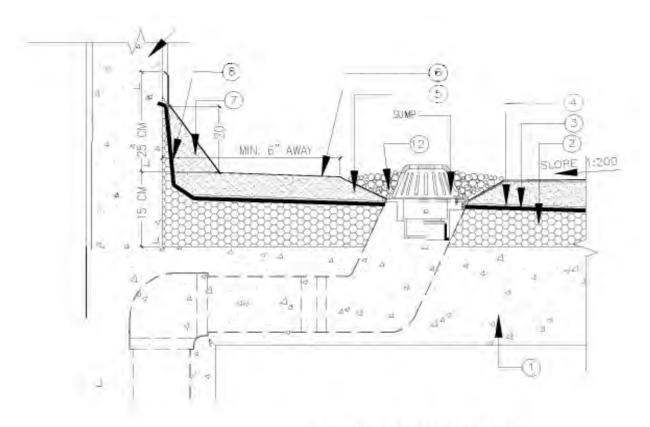


### **COMPANY PROFILE**





### **DRAIN PIPE DETAILS**



### RWP DRAIN DETAIL

# MATERIAL TECHNICAL DATA SHEETS



# Baymer<sup>®</sup> SHPU-40-27A

General Properties and Applications	Baymer <sup>®</sup> SHPU-40-27A is a polyol formulation used to produce spray foam insulation in multi layers for roofing, wall and basements with a density of 40-48 kg/m³. It contains all the raw material and auxiliaries necessary for the production of rigid polyurethane foam including the blowing agent. The system is CFC free and contains HCFC 141B as blowing agent that is in compliant with the environment regulations at present. SHPU-40-27A along with SYSTEM ISO 44V20L can be used on roofs made of metal, concrete, wood etc.
Sampling	Moisture access should be prevented, formulation should be agitated before sampling.

Specification Property	Value	Unit of measurement	Method
Hydroxyl number (theoretical)	350 ± 20	mg KOH/g	
Water content	1,2 ± 0,05	%	

Other Data* Property	Value	Unit of measurement	Method
Density	approx. 1,16 ± 0.01	g/ml	

<sup>\*</sup> These values provide general information and are not part of the product specification

Packaging	200l steel drums - IBC, tank truck and tank containers on request	
Storage	Shelf life from time of delivery: 6 months if stored in sealed moisture tight containers.	
	Recommended storage temperature approx. 25°C	
Labeling and REACH applications	This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.	



# Baymer<sup>®</sup> SHPU-40-27A

**Directions for Processing** 

Baymer<sup>®</sup> Spray systems are designed for processing on high and low pressure machines that are able to work at mixing ratios of 1:1 by volume, the machine parameters have to be selected in such way to ensure proper mixing.

### **Environmental Consideration and Substrate Temperatures:**

Applicators must recognize and anticipate climatic conditions prior to application to ensure highest quality foam and to maximize yield. Ambient air and substrate temperatures, moisture and wind velocity are all critical determinants of foam quality. Extreme ambient air and substrate temperature will influence the chemical reaction of the two components, directly affecting the yield, adhesion and the resultant physical properties of the foam insulation. To obtain optimum results, Baymer Spray should be spray-applied to substrates when ambient air and surface temperatures are between 10°C and 50°C°. All substrates to be sprayed must be free of dirt, soil, grease, oil and moisture prior to the application of Baymer Spray. Moisture in any form: excessive humidity (>85%R.H.) rain, fog, or ice will react chemically will adversely affect system performance and corresponding physical properties. Application should not take place when the ambient temperature is within 3°C of the dew point. Wind velocities in excess of 20 km per hour may result in excessive loss of exotherm and interfere with the mixing efficiency of the spray gun affecting foam surface texture, cure, physical properties and will cause overspray. Precautions must be taken to prevent damage to adjacent areas from fugitive overspray.

Applicators should ensure the safety of the jobsite and construction personnel by posting appropriate signs warning that all "hot work" such as welding, soldering, and cutting with torches should take place no less than 35 feet from any exposed foam. If "hot work" must be performed all spray polyurethane foam should be covered with an appropriate fire or welder's blanket, and a fire watch should be provided.

### **Processing Equipment:**

2:1 transfer pumps are recommended for material transfer from container to the proportioner. The plural component proportioner must be capable of supplying each component within ± 2% of the desired 1:1 mixing ratio by volume. Hose heaters should be set to deliver 50°C to 55°C materials to the spray gun. These settings will ensure thorough mixing in the spray gun mix chamber in typical applications. Optimum hose pressure and temperature will vary with equipment type and condition, ambient and substrate conditions, and the specific application. Some equipment may require you to heat drums to achieve optimum material temperature. It is the responsibility of the applicator to properly interpret equipment technical literature, particularly information that relates acceptable combinations of gun chamber size, proportioner output,



## Baymer® SHPU-40-27A

and material pressures. The relationship between proper chamber size and the capacity of the proportioner 's pre-heater is critical. Contact your machine supplier representative for specific recommendations, pricing, and availability of spray and auxiliary equipment.

### Per Pass Application:

Applicators should limit Bamer Spray thickness to 2,0 cm per pass for optimal processing and physical properties.

### Handling and Safety:

Respiratory protection is MANDATORY! Contact BaySystems for a copy of the Model Respiratory Protection Program developed by API or visit their website at www.polyurethane.org. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact, immediately flush with large amounts of water for at least fifteen minutes, consult a physician immediately. In case of skin contact, wash area with soap and water. Wash clothes before reuse.

Guide formulation	parts by weight	parts by volume
Baymer® SHPU-40-27A	100	100
SYSTEM ISO® 44V20L	110	100

### Foaming data by the hand mixing method at raw material temperature of 21°C

Cream time	4 ± 1	Seconds
Tack free time	10 ± 1	Seconds
Free Rise Density	25 ± 1	kg/m <sup>3</sup>
Applied density	approx. 40-48	kg/m <sup>3</sup>

### Typical properties to be achieved under recommended application parameters:

Density	approx. 43-47 kg/m³
Compressive strength	> 100 kPa
Fire rating (DIN4102-1)	B3
Water absorption	< 1 %

Initial thermal conductivity (ASTM 0.0218 W/Km

C518)

Aged thermal conductivity @ 10 deg. ≤0.026 W/Km

C mean temperature

Foam Working Temperature Range -40 to 100°C

These values are given only as a guide and must be verified in each individual case on finished parts manufactured under the processor's production conditions.





# Baymer<sup>®</sup> SHPU-40-27A

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Covestro. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

This product is not designated as "Medical Grade" (1) and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood)\*. [This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro. 1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

2) As defined in Commission Regulation (EU) 1935/2004.

Editor: Bayer Pearl Polyurethane Systems LLC Dubai, UAE P.O. Box 28605 Phone: +971 4 8067900 Fax: +971 4 8835221 www.covestro.com

Contact :
Amanullah Abdul Jabbar
e-mail: amanullah.abduljabbar@covestro.com

page 4 of 4

Edition 2011-10-04





# SYSTEM ISO<sup>®</sup> 44V20L

<b>General Properties and Applications</b>	SYSTEM	ISO	44V20L	is	а	liquid,	dark	brown	mixture	of
	diphenylme	ethane-	4,4'-diisocy	/anat	te (ľ	MDI) with	isome	rs and h	omologues	of
	higher fund	ctionalit	y. It is use	d in	conj	unction w	ith poly	ols to pro	oduce mol	ded
	parts of rig	id integ	ıral skin foa	ms.						
Sampling	Exposure t	o mois	ture must b	e pre	even	ted when	taking	product s	amples	

Specification Property	Value	Unit of measurement	Method
NCO content	30.5 - 32.5	% by wt.	2011-0248603-94
Viscosity 25 °C*)	160 - 240	mPa⋅s	2011-0313703-95
Acidity	max. 200	ppm HCI	2011-0461102-96

<sup>\*)</sup> Lengthy storage can lead to an increase in the viscosity of SYSTEM ISO 44V20L, although in our experience this has no adverse effect on the processing properties of the product.

### Other Data\*

Property	Value	Unit of measurement	Method
Density 20 °C	approx. 1.23	g/cm³	DIN 51757
Phenylisocyanate content	max. 50	ppm	2011-0489801-95
Coefficient of thermal expansion	6.59 . 10-4	K-1	
Specific heat (cp)	approx. 1.51	kJ/kgK	

<sup>\*</sup> These values provide general information and are not part of the product specification

Packaging	Drums, IBCs, tank containers and tank wagons
Storage	Recommended storage temperature: + 10 to + 30 $^{\circ}\text{C}$ (in exceptional cases up to 50 $^{\circ}\text{C}$ )
	Storage stability (ex works): 6 months if stored in moisture-tight drums
Labeling and REACH applications	This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.



### SYSTEM ISO® 44V20L

### **Directions for Processing**

SYSTEM ISO 44V20L may undergo partial crystallization at temperatures below 0 °C. The product can, however, be brought back into the liquid state by heating the entire contents of the drum for a short time to a maximum of 70 °C, although this may lead to an increase in the solids content.

Drums including empty ones should always be kept tightly sealed. The product should never be allowed to come into contact with water, which reacts with SYSTEM ISO 44V20L to form polyureas and carbon dioxide. Contact with water in any form (damp drums, solvents containing water, moist air) must be prevented not only during storage, but also when removing material from drums and during processing. Failure to do so may lead to a dangerous build up of pressure in tanks and drums due to the generation of carbon dioxide. In addition, polyureas forming in SYSTEM ISO 44V20L can cause solids to separate out, leading to blockages in the filters, pumps and pipelines of the processing equipment and resulting in production problems.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Covestro. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent. any material or its use. No license is implied or in fact granted under the claims of any patent

This product is not designated as "Medical Grade" (1) and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood)\*. [This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purphaser of the product without relying upon any representations by Covestro. Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro.

1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document. 1) Please see the "Guidance on Use of Covestro Product 2) As defined in Commission Regulation (EU) 1935/2004.

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### CERTIFICATE OF PRODUCT CONFORMITY

Dubai Central Laboratory Department (DCLD) of Dubai Municipality hereby attests that the product(s)

### **Low Emitting Materials**

(Details as per the attached Scope of Certification)

manufactured by:

### AL GURG FOSROC LLC Umm Ramool Industrial Area, Rashidiya, Dubai, UAE

have been assessed in accordance with DCLD Document Ref. No. DM-DCLD-RD-DP21-2001 (IC) "General Rules for DM third party product certification system through factory assessment" and the relevant Specific Rules, and were found in conformity with the standard specification:

### 2020 AL SA'FAT DUBAI GREEN BUILDING SYSTEM

Accordingly, DCLD hereby authorizes the above manufacturer to affix the DCL Product Conformity Mark on the above-mentioned product(s).

> for / ENGR. AMIN AHMED AMIN Director, Dubai Central Laboratory Department **Dubai Municipality**



Valid Until: 11/06/2023



Current Issue Date: 12/06/2022 Original Issue Date: 12/06/2017



800900











# DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

# SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020444

Certificate Issued To AL GURG FOSROC L.L.C

Umm Ramool Industrial Area, Rashidiya, Dubai, UAE

Applicable Standard Specification: 2020 Al Sa'fat - Dubai Green Building System

Applicable Specific Rules: DM-DCLD-RD-DP21-2180 (IC) - Specific Rules for Certification of

Low Emitting Materials (Coatings, Adhesives & Sealants) As per the

2020 Al Sa'fat Dubai Green Building System.

Nitoprime WB * Dekguard Primer WB * Dekguard EP302 * Proofex Tackcoat WB Nitocote SN502 * Nitocote SN502 * Nitoprime SP * Nitoprime SP * Nitoprime 25 * Nitoprime 31 * Nitoseal Primer MS2 * Dekguard Primer * Dekguard Primer * Dekguard Primer * Primer 7E * Galvafroid *  Dekguard Primer WB * Water Base for Interior and Exterior Application VOC (Al Sa'fat DGBS limit is max. 750g/l) Heavy metals: Cadmium and Chromium (Al Sa'fat DGBS limit < 500 mg/Kg), Arsenic, Mercury and Lead (Al Sa'fat DGBS limit <100 mg/Kg)	S/N	PRODUCT DESCRIPTION	BRAND NAME	PRODUCT DETAILS
Proofex rackcoat		CATEGORY 8	Nitoprime WB *  Dekguard Primer WB *  Dekguard EP302 *  Proofex Tackcoat WB  Nitocote SN502 *  Nitocote SN522 *  Nitocote Primer Sealer *  Nitoprime SP *  Nitoprime Zincrich *  Nitoprime 31 *  Nitoprime MS2 *  Dekguard Primer *  Dekguard Primer DG *  Trafficguard Primer *  Primer 7E *	Water Base for Interior and Exterior Application  VOC (Al Sa'fat DGBS limit is max. 750g/l)  Solvent Base for Interior and Exterior Application  VOC (Al Sa'fat DGBS limit is max. 750g/l)  Heavy metals: Cadmium and Chromium  (Al Sa'fat DGBS limit < 500 mg/Kg),  Arsenic, Mercury and Lead





# DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

# SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020444

		FOR CERTIFICATE NO. C	
		Dekguard E2000 *	
		Dekguard AC *	
	 	Dekguard PU 100 *	
		Dekguard Filler *	
		Nitocote PE135 *	
	-	Nitocote HEX *	
		Nitoproof 600 WB *	
		Nitoproof 10	Water Base
	_	Nitoproof 30	for Interior and/or Exterior  Application
	_		
		Nitoproof 110	VOC (Al Sa'fat DGBS limit is max. 140 g/l)
	CATEGORY 9	Nitoproof 120	WHITE COLOR
	One Pack	Nitoproof 230	Class 1: SRI is ≥78 (suitable for steep sloped
2.	Performance	Nitoproof 725	surface and for flat or low sloped surface)
	Coating	Nitoflor Lithurin 2	Class 1: LRV is ≥ 45% (suitable as exterior
		Nitoflor Hardtop	coating for building (See Note 3)
	-	Nitoflor Levelcrete	
	-	Nitoflor Emeritop	
	-	Nitoproof 100	
		Nitoproof 600	
		Cemtop 200	
		Cemtop 250T	
		Cemtop 400 SD	
		Cemtop HD	
		Brushbond TGP	
		Nitoflor FC 100 *	Solvent Base for Interior and/or Exterior
		Dalaria de C.+	Application
		Dekguard S *	VOC (Al Sa'fat DGBS limit is max. 500 g/l)





### **DUBALCENTRAL LABORATORY DEPARTMENT**

### DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

# SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020444

		FOR CERTIFICATE NO. CL	
		Nitoflor FC130 *	Water Base
		Nitoflor FC550 *	for Interior and Exterior Application
		Nitoflor Conductive Undercoat *	VOC (Al Sa'fat DGBS limit is max.140 g/l)
		Nitocote CM210	
		Brushbond	WHITE COLOR
			Class 1 : SRI is ≥78 (suitable for steep sloped
			surface and for flat or low sloped surface)
		Brushbond FLXIII	Class 1 : LRV is ≥ 45% (suitable as exterior
			coating for buildings)
			(See Note 3)
		Dekguard PU *	
		Nitocote EPS *	Solvent Base
		Nitocote EPU *	for Interior and Exterior Application
	CATEGORY 10	Nitoflor EPU 100 *	VOC (Al Sa'fat DGBS limit is max. 500 g/l)
		Nitocote EP403 *	
2	Two Pack	Nitocote EP405 *	WHITE COLOR
3.	Reactive	Nitocote EP410 *	Class 1 : SRI is ≥78 (suitable for steep sloped
	Performance	Nitocote ET402 *	surface and for flat or low sloped surface)
	Coating	Nitocote ET402-E *	Class 1 : LRV is ≥ 45% (suitable as exterior
		Nitocote ET550 *	coating for buildings)
		Nitocote EN901 *	(See Note 3)
		Nitocote NT402 *	
		Nitocote NT550 *	
		Nitocote HT120 *	
		Nitoflor Conductive *	
		Nitoflor EU5 *	
		Nitoflor EU10 *	
		Nitoflor EU50 *	
		Nitoflor FC140 *	
		Nitoflor FC145 *	
		Nitoflor FC150 *	
		Nitoflor FC400 UH *	





# DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

# SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020444

		Nitoflor SL1000 *	
		Nitoflor SL2000 *	Solvent Base
	Nitoflor SL3000 *		for Interior and Exterior Application
		Nitoflor SL4000 *	
		Nitoflor SL6000 UB *	VOC (Al Sa'fat DGBS limit is max.500 g/l)
		Nitoflor TF100 UH *	
		Nitoflor TF120 UB *	WHITE COLOR
		Nitoflor TF5000 *	Class 1 : SRI is ≥78 (suitable for steep sloped
		Nitoflor ET Slurry *	surface and for flat or low sloped surface)
		Trafficguard Top Coat *	Class 1 : LRV is ≥ 45% (suitable as exterior
		Trafficguard Wear Course *	coating for buildings)
		Trafficguard Membrane *	(See Note 3)
		Trafficguard Intermediate *	
	Polyurea WPE		
		Polyurea FLM	
		Nitoseal PE290 *	
		Nitoseal PU280 *	
		Colpor 200	
		Flamex I	
		Flamex II	
4.	Sealants	Nitoseal MS60	Architectural Application
4.	Sediants	Nitoseal MS300	VOC (Al Sa'fat DGBS limit is max. 250 g/l)
		Nitoseal MS600	
		Nitoseal PU40	
		Nitoseal PU220	
		Nitoseal PU220-PF	
		Thioflex 600	
		Nitobond EP *	Multi Durpaga Construction Adharing
		Nitobond SBR	<ul><li>Multi-Purpose Construction Adhesive</li><li>VOC (Al Sa'fat DGBS limit is max. 70 g/l)</li></ul>
5.	Adhesives	Nitobond AR	VOC (AI 3a Iat DOB3 IIIIIIt IS IIIax. 70 g/l)
		Nitotile 489 *	Ceramic Tile Adhesive
		Nitobond Tile Adhesive	VOC (Al Sa'fat DGBS limit is max. 65 g/l)





# DUBAI CENTRAL LABORATORY DEPARTMENT DCL PRODUCT CONFORMITY CERTIFICATION SCHEME

# SCOPE OF CERTIFICATION FOR CERTIFICATE NO. CL17020444

Nitotile GP	
Nitotile LM	Ceramic Tile Adhesive
Nitotile EN	VOC (Al Sa'fat DGBS limit is max. 65 g/l)
Nitotile C1Fix	
Nitotile C2 Highfix	
Nitotile XS	

- Note 1: This document forms part of the Certificate of Product Conformity bearing the same certificate number.
- Note 2: The above products shall bear the DCL Conformity Mark.

Note 3: For colors/types not covered by the Scope, SRI and LRV shall be tested and classified based on the application of the product in the construction site to ensure that it meets the requirements of 2020 Al Sa'fat - Dubai Green Building System.

- o SRI Class 1 (≥ 78) "Can be Used in 75 100% of surface to be coated Sloped or Flat Roof"
- o SRI Class 2 (29<78) "Can be Used in 75 100% of surface to be coated Sloped Roof"
- SRI Class 3 (< 29 or untested) "Can be Used in 0 25% of surface to be coated Sloped or Flat Roof provided the remaining area is Class 1 or 2"
- o LRV Class 1 (≥45) "Can be used in 75-100% of surface to be /painted/coated"
- LRV Class 2 (<45 or untested) "Can be used in 0-25% of surface to be painted/coated provided the remaining area is Class 1".

Note 4: " \* " - The Products are produced in AL GURG FOSROC L.L.C BRANCH, Industrial Area1, Jabel Ali, Dubai, UAE.

Original Issue Date: 12 June 2017
Current Issue Date: 12 June 2022
Valid Until: 11 June 2023

**ARIF HUSAIN AL MARZOOQI** 

Products Conformity Assessment Section Manager

Dubai Central Laboratory Department

# 2



# Fosroc Nitoproof 30 (Formerly Nitoproof 30HL)

### Multi-purpose, rubberised, bitumen emulsion

#### Uses

Provides a highly effective waterproof membrane, with cost and labour saving supplementary benefits. It can be used in a wide range of applications:

- Damp proof membrane in 'sandwich construction'.
- Dual purpose waterproofer and curing compound.
- General purpose waterproofer for walls and floors.
- Highly effective vapour seal.
- Effective as an adhesive/bonding agent for cork panels, insulation boards, expanded polystyrene etc.

### **Advantages**

- Cost saving, material which can be used as a waterproofer and curing compound in a single application.
- Labour saving, single component material which is also water based, and therefore non-toxic.
- Environmentally friendly, non-flammable, asbestos free and can be used in confined spaces.
- Excellent service life resistant to chloride and sulphate ions.
- Versatile highly extensible.

### Standards compliance

Nitoproof 30 complies with the concrete curing requirements of ASTM C309, when applied at the rate of 4m<sup>2</sup> per litre.

### Description

Nitoproof 30 is a rubber reinforced, bitumen emulsion. It is supplied as a single component liquid, dark brown in colour, which dries to form a black, flexible coating.

Nitoproof 30 is available in drums and may be applied directly to the substrate by brush or squeegee.

### **Specification**

Where shown on the contract documents, below ground surfaces shall be protected with Nitoproof 30, a rubberised bitumen emulsion, applied at the rate of 1 m<sup>2</sup> per litre giving a total dry film thickness of minimum 600 microns.

### **Properties**

Form	:	Dark brown liquid
Specific gravity	:	1.00
Solids content	:	60 to 65%
Rubber content	:	Approx. 10 %
Drying time	:	30 mins at 25°C
Overcoating time	:	1 hour @ 25°C

#### Instructions for use

#### Surface preparation

All surfaces must be clean, dry and free from dirt, dust, oil and grease.

### Application

Nitoproof 30 should be applied by brush or squeegee to prepared surfaces. Stir well before use, replace lid when not in use. Soak up any spillage with sand or sawdust and wash down immediately.

### Damp proof membrane and vertical vapour barrier

Apply Nitoproof 30 at the rate of 1m<sup>2</sup> per litre, to give a minimum dry film thickness of 600 microns, as per CP102:1973.

For vertical applications, ensure that there is no material sag. This can be best achieved by multiple coat applications at a maximum rate of 200 microns per coat. For multiple coat application, the second coat should be applied at right angles to the first. All applications should be continued up verticals to the existing damp proof course. Ensure that the membrane is not punctured or damaged during subsequent applications.

Where the surface is to receive a render or plaster finish, a keyed surface should be formed by 'gritting' the second coat with clean, dry sand. Allow a minimum of 48 hours drying period before applying a plaster, render or floor screed.

### Flooring adhesive

Nitoproof 30 is a very effective waterproof adhesive for laying wood blocks, cork, asphalt and asbestos tiles. The surface should be clean, dry and smooth. Nitoproof 30 should be applied to the floor screed using a notched trowel, and then left to become tacky after which the tiles should be pressed firmly into place.

Any contamination of the tile's upper surface should be cleaned immediately using a cloth - refer to any special recommendations made by the tile manufacturer.

### **Fosroc Nitoproof 30**

#### Adhesive for insulation

Nitoproof 30 is suitable for bonding insulation materials such as polystyrene, fibreboard and cork slabs to walls and floors.

The two surfaces to be bonded must be clean, level and free from all points of contact. Nitoproof 30 should be applied to both surfaces and left to become tacky (colour begins to darken). The two surfaces should then be pressed firmly and evenly together.

#### Repairs

Any damaged areas can be readily overcoated to restore the membrane continuity - provided the surface is properly prepared.

#### Cleaning

Nitoproof 30 can be removed using only clean water, whilst still damp. If left to dry, then Fosroc Solvent 102\* must be used.

#### Limitations

- Nitoproof 30 is not a structural adhesive, therefore mechanical fixing should be used where appropriate.
- Application should not commence below 6°C or above 45°C.
- Avoid application during windy atmospheric conditions.
   Application during such periods might cause cracking.
- For application in harsh climatic conditions, 'Nitoproof 600' is recommended.

### **Estimating**

#### Supply

Nitoproof 30 : 20 and 200 litre drums

### Theoretical coverage

(actual coverage rates will depend upon substrate porosity)

General use	:	1m <sup>2</sup> per litre to give 600
microns dft		
Curing compound	:	4m <sup>2</sup> per litre per coat
to give 150 micron dft		

### Storage

Nitoproof 30 will have a minimum shelf life of 12 months if stored in normal warehouse conditions between 15 and 40°C. Protect from temperatures below 10°C.

### **Precautions**

#### Fire

Fosroc Solvent 102 is flammable. Ensure adequate ventilation, do not use near a naked flame and do not smoke during use.

### Flash point

Fosroc Solvent 102	:	33°C
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### Health and safety

Some people are sensitive to resins and solvents, so gloves and barrier creams (e.g. Kerodex Antisolvent) should be used when handling these products. Remove any contamination from the skin with soap and water, or resin removing creams (e.g. Kerocleanse Standard Grade Skin Cleaner) followed by washing with soap and water. Do **not** use solvent.

The use of goggles is also recommended, but should accidental eye contamination occur, wash thoroughly with plenty of clean water and seek medical treatment immediately.

- \* Denotes the trademark of Fosroc International Limited
- † See separate data sheet

### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.



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### **POLYBOARD**

Provenperformance

### **Technical Data Sheet**

### Description:

Polyboard consists of compressed wood fibres from timber, impregnated with Bitumen Emulsion. Polyboard complies in general with the requirements of the American and British Standard Codes of Practise as listed below.

#### Uses:

Polyboard is used as general-purpose expansion joint filler in concrete slab and wall construction, and as a protection board for waterproofing membranes.

### Sizes:

Thickness

10mm, 12mm 19mm, 25mm

Sheet Size

2.20m x 1.22m

Cut Strips

100m, 150mm, 175mm, 200mm other widths to order.

### Technical Data:

Complies with

ASTM D1751 - Compression & Recovery Test

BS 1142: 1989 (SBI Grade)

D.o.T. Specification for highway Works Part 3: Clause 1015:

1991 (application EJF) Weathering Test Method 800/V.C 1.3

Typical Test Results (BS 1142):

Speciment No.	1	2	Specification
Load required to compress specimen to 50% of pre-test thickness	As supplied 1.68 N/mm2	Weathered 1.21 N/mm2	0.7 - 10.0 N/mm2

### Compression & Recovery Test (Test Method 800/V.C1.4)

The specimens tested complied with the Weathering and Compression and Recovery Requirements.

Test Results on 12mm Thickness - Independently Tested by Namas approved testing laboratory "Strangers in UK".

Recovery after 3rd Cycle of Compression 80/82%.

Typical Test Results 12mm (BS1142): 1989

BS 1142	STAND	POLYBOARD
Thickness setting	No requirement	4,5%
Recovery	Min. 70%	83%
Water absorption	Max. 45%	25%
Density	Max. 400kg/m <sup>3</sup>	220-270 kg/m <sup>3</sup>
Asphalt content	No requirement	21-27%

Specification: Polyboard to be used in all Expansion Joints and as a Protection Board to Membranes.

Contractor

: SMART ROOF INSUATION CONTRACTING

**Project** 

PLOT NO. 612-3997 AT AL BARSHA SOUTH SECOND, DUBAI, UAE

Description	20N/OPC+36%GGBS/10MM	Class	Grade
Slump @ Site	150 +/- 40mm	Cube	C20

Stru <i>c</i> tural Element:	SCREED

Mix Design Details:

Materials	Source	SSD	Qty(Kg)	Vol(Ltr)
OPC	NATIONAL CEMENT COMPANY [DUBAI]	3.15	179	56.8
SRC			-	-
MSRPC	-	-	-	-
GGBS	NATIONAL CEMENT COMPANY [DUBAI]	2.8	101	36.1
M.S		-	-	
FREE WATER	DEWA [DUBAI]	1	154	154.0
10mm	STEVEN ROCK [RAK]	2.79	860	308.2
5mm WS	STEVEN ROCK [RAK]	2.68	660	246.3
DUNE SAND	BIN HOWAIDAN [AL AIN]	2.62	480	183.2
Admixture:				

Ratios	
Total Cementitious(Kg):	280
Free W/C:	0.55
Agg/Cement:	7.14

Adm		
DACE	113	

Admixture:	1		-	
BASF-112 or FOSROC-W420	SP (2-6 l/m <sup>3</sup> )	1.06	6	5.7

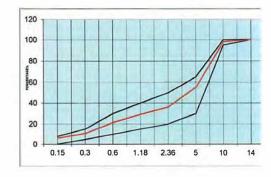
Durability Limits (If Specified)				
RCP (Rapid Cloride Penetration)				
DIN	N/A			
W.A %	IVA			
ISAT				

1000 Fresh Concrete Density 2440

Air Content < 3 %

### **GRADING COMBINATION**

B.S Test Sieve [mm]	10mm[%]	0- 5mm[%] 33.00%	D.Sand[%] 24.00%	Comb.[%] PASSING	B.S SPE B.S 882	
14	43.0	33.0	24.0	100.0	100	100
10	40.9	33.0	24.0	97.9	95	100
5	4.3	29.0	21.6	54.9	30	65
2.36	0.3	16.5	19.2	36.0	20	50
1.18	0.0	12.5	16.3	28.9	15	40
0.6	0.0	6.6	14.4	21.0	10	30
0.3	0.0	3.3	7.2	10.5	5	15
0.15	0.0	3.0	2.9	5.9	0	8



Remarks:

1. Slump tolerance: In accordance with B.S EN 206-1:2000, BS 8500-1 & ASTM C94.

. The dosage of admixture will vary as per working conditions but within manufacturer's recommendation.

The target line of aggregate proportions is subject to change due to deviation in the individual grading.

Total Water On Plant(TWOP)=[Free Water + Aggregates Water Absorption].

5. remperature control will be adjusted by addition of ice to obtain concrete temperature at site 32°C max .

6. Chemical admixture could be replaced by any other equivalent version from other approved suppliers.

7. High slag cement content mixes' compressive strength test at 56 days is allowed.

Technical Manager Abdellatif Badr



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# Polyfab

### Non Woven Polyester Separation Layer

Preventer formance

#### DESCRIPTION

Polyfab separation layer is a high quality geotextile fabric of non woven polyster. It is intended to act as a separation between products and also to increase the puncture resistance of the waterproofing assembly.

#### COMPOSITION

Polyfab separation layer is a geotextile fabric composed of polyester fibers tightly knit together. The tight needle punch produces a fabric which is highly resistance to puncture.

#### INSTALLATION

Polyfab separation layer is installed by an authorized waterproofing applicator. The separation layer is typically loosely laid over the waterproofing membrane and lapped 4 inches over the previous roll.

#### USES

Polyfab geotextiles are used for more than 80 application in civil engineering, which can be broadly classified as:-

- Separation
- · Reinforcement
- Filtration
- · Drainage
- Moisture Barrier

Polyfab geotextile finds its use in roofing, waterproofing membrane reinforcement, application in roads, protection system in landfills, filtration and drainage application sub-surface drains, erosion prevention in waterfront structures, asphaltic overlays, dust filters etc.

### TECHNICAL DATA

TECHNICAL CHARACTERISTIC	TEST METHOD	UNIT	VALUE
Mass per unit area *	ASTM D 5261	G/M <sup>2</sup>	100
Thickness (under 2KN/M²) **	ASTM D 5199	MM	1.5
Tensile Strength *	EN 29073-3	N/5CM	170/200
Elongation	EN29073-3	%	>50
Trapazoid tearing*	ASTM D 4533	N	100/120
Puncture Strength*	ASTM D 4833	N	170
Fabric Colour	White		

Tolerance: \* +/- 10% \*\* +/- 15%





# Mastic 2000A

(High Performance Acrylic Sealant – Mastic)

**DESCRIPTIOIN:** Mastic 2000A Acrylic Flexible Filler is a non-staining, white sealant that resists cracking and gives a smooth finish that requires no sanding. Mastic 2000A Acrylic Flexible Filler is a permanent, flexible sealant for a wide variety of internal applications where low (=/-5%) movement is anticipated excellent adhesion to most substrates.

**USES**: Ideal for caulking and sealing: Door and window frames, Skirting boards, Floorboards, Walls, Ceilings, Plasterboard, Adheres to: Concrete, Plastic, Ceramics, Tiles.

**SURFACE PREPARATION & APPLICATION:** Ensure gaps and cracks to be filled are dry and free of grease, dirt, dust and any lo0ose material. Fill the seam with an ample amount of filler. Can be over-painted approximately one hour after application.

**FOR BEST RESULTS:** Reseal container for storage and re-use. Store away from extreme heat and cold, joint sizes more that 20mm wide or 10mm deep must be filled with backing rod as a back-up filler. Do not use for below waterline applications, Do not use as a putty, Do not apply when temperature is below 7°C.

### **TYPICAL PROPERTIES:**

Application Temperature  $: 7^{\circ}\text{C to} + 40^{\circ}\text{C}$ Service temperature  $: -10^{\circ}\text{C to} + 80^{\circ}\text{C}$ Working time : 10 to 20 minutes

Complete drying time : 24 hours Percentage solids :  $78 \% \pm 2\%$ Specific gravity :  $1.56 \pm 0.05$ .

Movement joint :  $\pm$  5% External resistance : None

**CLEANING** : Clean tools with soap and water after use.

**SHELF LIFE** : 18 months

**COLOR** : White/Grey

**SPECIFICATION**: Confirm to ASTM C 733





**COVERAGE**: All the coverage depends on the nature of depth and width of crack. Given below shows rough coverage of running length in meters of joints filled per Kg. of Mastic 2000A.

JOINT WIDTH (MM)	JOINT DEPTH (MM)	SEALED LENGTH (MTR)
10	5	16
15	7.5	7
20	10	4
25	12.5	2.5
30	15	2

#### **HEALTH & SAFETY:**

As with all chemical products, caution should always be exercised. Protective clothing, such as gloves and goggles, should be worn (see packaging for specific instructions) Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallow, do not induce vomiting, but call for medical assistance immediately?

Ensure the container is available for the medial attendant to examine any relevant instructions and contents details.

Reseal all containers after use and ensure product is stored as instructed on the safety section of the labeling.

#### **CAUTION:**

Avoid contact with eyes and skin. Only use in well-ventilated areas. Keep out of reach of children.

#### NOTE:

All information is given in good faith on the results gained from experience and tests. However, all recommendations or suggestions are made without guarantee since we don't have any control on site conditions and its uses.



constructive solutions

Acrylic polymer modified protective and decorative coating for concrete and masonry

#### Uses

To protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, oxygen and water. The product is also suitable to protect other cementitious substrates and masonry for new and existing structures. Typical applications include:

- Re-facing and reprofiling concrete & masonry surfaces
- Flexible coating to bridge shrinkage cracks
- Waterproof coating for water tanks and reservoirs
- Robust coating which can withstand pedestrian traffic
- Backing to marble and granite, preventing water ingress and alleviate staining

#### **Advantages**

- Excellent barrier to carbon dioxide, chloride ions and water
- Allows water vapour to escape from the structure
- Water proof suitable for water retaining structures
- High resistance to the effects of long-term weathering, durable in all climatic conditions including UV attack
- Minimum surface preparation needed and low labour costs
- Flexible, with thermal expansion similar to concrete
- Covers honeycombed and pitted poured concrete effectively
- Good abrasion resistance

#### Description

Brushbond comprises a two component acrylic polymer modified cementitious coating supplied in ready to mix kits. Brushbond can be simply applied by stiff brush, roller, spray or trowel to obtain the desired texture.

**Note:** For potable water applications, please refer to Nitocote CM210 and Brushbond FLX III datasheets

#### Design criteria

The coating should be applied in two coats to achieve a total dry film thickness of not less than 2mm. Areas subjected to light foot traffic should receive minimum 2mm thickness and an additional 2mm coating should be applied to areas of moderate to heavy pedestrian conditions. To achieve the correct protective properties, Brushbond must be applied on to the substrate at the coverage rates recommended.

#### **Properties**

Pot life	:	80 mins @ 25°C
		50 mins @ 35°C
Colours	:	grey and white,
		special colours on request
Application temp	:	>5°C and <45°C
Tensile strength		
(ASTM D638)	:	>1 N/mm <sup>2</sup>
Bond strength		
(ASTM D4541)	:	>1 N/mm <sup>2</sup>
Moisture vapour		
transmission (g/m²/day)	:	>300
(ASTM E96)		
Carbonation resistance		
Coated with Brushbon	d:	0mm
NT Build 372 (accelerated test)		
Un coated	:	1.5mm

#### **Specification**

#### Acrylic polymer modified protective/decorative coating

The protective coating shall comprise specially selected cements, graded hardwearing aggregates and additives supplied in powder form together with a liquid component of blended acrylic co-polymers and wetting agents. The total dry film thickness of the coating shall be not less than 2 mm and shall be capable of providing resistance to wear and weather and good chemical resistance to mild inorganic acid solution, diesel oil, gasoline, chlorides, de-icing salts, effluents and organic solvents.

#### Instructions for use

#### **Preparation**

All surfaces should be dry and free from contamination such as oil, grease, loose particles, decayed matter, laitance, and all traces of mould release oils and curing compounds. This is best achieved by lightly grit-blasting the surface.

Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the grit-blasting process.

Spalled and deeply disintegrated concrete should be removed to sound concrete and repaired with a Fosroc repair system. For further advice, consult the local Fosroc office.

It is essential that all surfaces to be treated be pre-soaked with clean water prior to application of Brushbond.

#### Mixing

Brushbond liquid should be poured from the plastic container into the metal drum provided. For brush application consistency mix with a slow speed drill (500 r.p.m.) fitted with a Fosroc Mixing Paddle (MR3).

The powder component should be added gradually to the liquid to avoid lump formation and mixed for 2 to 4 minutes.

Brushbond should be immediately used after mixing. Do not mix more material than can be used within the pot life. Keep mixing Brushbond during the application.

#### **Application**

Application of Brushbond on hot substrates (i.e. over 40°C surface temperature) will need the prior application of a primer coat. Mix Brushbond and water in slurry like consistency and apply Brushbond over the primer whilst it is still wet.

For best results, surfaces should be damp. In order to obtain the protective properties of Brushbond, it is important that the correct rates of application are observed.

Use a short stiff brush (preferably 120 - 200mm width) and apply in one or two coats as required.

Spray applications should use the correct mixing ratio to obtain satisfactory consistency. In hot climatic conditions, it is likely that spray application will be the best for exterior decorative finishes. Nozzle size should be 3-4mm and pressure of 6-8 bars should be used.

It is recommended that for general resurfacing each coat should be 1mm thick. Areas subjected to light foot traffic should receive at least 2mm thickness of Brushbond and an additional 2mm should be applied if conditions are moderate to heavy pedestrian traffic.

If in doubt about the condition of the substrate, the local Fosroc office should be consulted.

#### Cleaning

Brushbond should be removed from tools and equipment with clean water immediately after use. Hardened material can be removed mechanically.

#### Limitations

- Where subsequent coatings or paints are required, trials should be conducted to ensure compatibility. For further advice, consult the local Fosroc office.
- Brushbond should not be applied if the air or substrate temperature is greater than 45°C. This may result in different colour shades.
- Brushbond should not be applied if the temperature of the substrate is below 5°C.
- Brushbond should not be applied where there is a likelihood of exposure to frost within 48 hours of the application.
- Brushbond should not be applied in windy conditions where early-age dust adhesion may occur, or where rain is likely within 2 hours at 20°C or 20 hours at 5°C (up to 80% RH).



#### **Technical support**

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer onsite technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

#### **Estimating**

#### Supply

Industrial kit	: 27 kg (14 ltr) pack consisting of:	
Powder	: 20 kg bag	
Liquid	: 7 kg pail	
Coverage		
Brushbond	: Theoretical 14 m²/ pack 1mm	
	thickness - Due to wastage	
	factors and the variety and	
	nature of possible substrates,	
	practical coverage figures will	
	be reduced.	

#### **Storage**

Shelf life is 12 months in unopened packs. Store between 35°C and 10°C in a shaded environment. Protect the powder component from sources of moisture and humidity. The liquid and powder components must not be allowed to freeze.

#### **Precautions**

#### Health and safety

Brushbond contains cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

#### **Fire**

Brushbond components are non-flammable.

For further information, refer to the product Material Safety Data Sheet.



#### Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following:

- hand-placed repair mortars
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- † See separate data sheet

#### Important note

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# MATERIAL TECHNICAL DATA SHEETS

# WET AREA WATERPROOFING

# FOSROC

#### constructive solutions

#### **Fosroc Brushbond**

# Acrylic polymer modified protective and decorative coating for concrete and masonry

#### Uses

To protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, oxygen and water. The product is also suitable to protect other cementitious substrates and masonry for new and existing structures. Typical applications include:

- Re-facing and reprofiling concrete & masonry surfaces
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#### Design criteria

The coating should be applied in two coats to achieve a total dry film thickness of not less than 2mm. Areas subjected to light foot traffic should receive minimum 2mm thickness and an additional 2mm coating should be applied to areas of moderate to heavy pedestrian conditions. To achieve the correct protective properties, Brushbond must be applied on to the substrate at the coverage rates recommended.

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Un coated

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Coated with Brushbond: 0mm		
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#### **Specification**

#### Acrylic polymer modified protective/decorative coating

The protective coating shall comprise specially selected cements, graded hardwearing aggregates and additives supplied in powder form together with a liquid component of blended acrylic co-polymers and wetting agents. The total dry film thickness of the coating shall be not less than 2 mm and shall be capable of providing resistance to wear and weather and good chemical resistance to mild inorganic acid solution, diesel oil, gasoline, chlorides, de-icing salts, effluents and organic solvents.

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- † See separate data sheet

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# APPROVED APPLICATOR CERTIFICATE



## **APPLICATOR CERTIFICATE**

## **SMART ROOF INSULATION CONTRACTING**

Has been certified as an approved applicator of the following Fosroc products

BRUSHBOND, NITOPROOF 30 & NITOSEAL PU40

For AL GURG FOSROC LLC

Shaimaa Hassan Marketing Manager

Valid From:

07th October 2022

Valid Until:

08th October 2023

\* Note: This certificate is issued on request, and we have no contractual obligation whatsoever.

Al Gurg Fosroc Co. LLC

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CER-128A-1022



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## APPROVED APPLICATOR CERTIFICATE

This is to certify that

#### **SMART ROOF INSULATION CONTRACTING**

have been registered as an Approved Applicator

and demonstrated in applying the following products/system:

#### **NEO COMBO ROOFING**



Date: 12-Nov-2022

Validity: 1 year from the date of issue

# CLIENT APPROVALS & PROJECT LIST



# Smart Roof Insulation Contracting

Smarter than you think!

#### **ONGOING & COMPLETED PROJECTS**

PROJECT	CONTRACTOR	STATUS
G+1 VILLA ON PLOT NO.	BORANTO CONTRACTING	ON-GOING
650703911 AL AIN		
TOWNHOUSES IN AL FURJAN	DAR AL FANAR CONTRACTING	ON-GOING
DUBAI, PLOT NO. AFWBTH051		
GROUND ONLY VILLA IN NAD	BIN LAHEJ CONTRACTING	ON-GOING
AL SHAMMA DUBAI	·	
TOWNHOUSES IN AL BADA	DAR AL FANAR CONTRACTING	ON-GOING
AREA PLOT NO. 3330455	LLC	
TWIN G+1 VILLAS ON PLOT NO.	PRECISE HANDS BUILDING	ON-GOING
AFNVBIL171/172 ALFURJAN	CONTRACTING LLC	
DUBAI		
TWIN G+1 VILLAS ON PLOT NO.	PRECISE HANDS BUILDING	ON-GOING
AFNVBIL151/152 AL FURJAN,	CONTRACTING LLC	
DUBAI		
VILLA 125 PALM JUMEIRAH	ADVANCE VICTORY	ON-GOING
	CONTRACTING LLC	
VILLA 64, PALM JUMEIRAH	ADVANCE VICTORY	ON-GOING
DUBAI	CONTRACTING LLC	
G+1 VILLA ON PLOT NO.	PERFECT WORK CONTRACTING	ON-GOING
2620390 AL MIZHAR FIRST	LLC	
VILLA IN AL SAFA PLOT NO.	BORAINDA CONTRACTING LLC	ON-GOING
3570530		
G+1 VILLA IN AL WARQA PLOT	AAA CONTRACTING LLC	FINISHED
NO. 4241511		
G+7 RESIDENTIAL BUILDING IN	AL SHAWI BUILDING	ON-GOING
INTERNATIONAL CITY PLOT	CONTRACTING LLC	
NO. 2291C-624 AL WARSAN		
G+1 VILLA IN EMERALD HILLS	CK INTERIORS & CONTRACTING	ON-GOING
PLOT NO. 6312362	LLC	
G+1 VILLA IN EMIRATES HILLS	CK INTERIORS & CONTRACTING	ON-GOING
PLOT NO. 6317820	LLC	
G+1 VILLA + SERVICE BLOCK IN	AL SIRAT CONTRACTING LLC	FINISHED
OUD AL MUTEENA		
G+1 TWIN VILLAS IN MIRDIF	DURABILITY CONTRACTING	ON-GOING
PLOT NO. 2514086	LLC	
G+1 VILLA IN AL AWIR FIRST	AL NAHRAWAN CONTRACTING	ON-GOING
PLOT NO. 2828463		
G+1 VILLA IN EMIRATES HILLS	ELEMECH INTERIORS AND	ON-GOING
PLOT NO. 3940165	CONTRACTING	
G+1 VILLA IN ARABIAN	ELEMECH INTERIORS AND	ON-GOING
RANCHES PLOT NO. 6642064	CONTRACTING	











# Smart Roof Insulation Contracting

Smarter than you think!

VILLA 3014-MR. GHANIM MOHAMMED MATAR BIN LAHEJ	BIN LAHEJ GENERAL MAINTENANCE & CONTRACTING LLC	ON-GOING
G+1+R VILLA AT PLOT NO. 416- 1902, NAD AL HAMAR, DUBAI, UAE	AL SIRAT CONTRACTING LLC	ON-GOING
0323-2956-VILLA J03 PALM JUMEIRAH, DUBAI, UAE	KDI CONTRACTING LLC	ON-GOING
VILLA IN DARARI SHARJAH	AL MALWIYAH CONTRACTING	ON-GOING
G+1 VILLA AT PLOT NO. 7116017, AL AWIR FIRST, DUBAI, UAE	PERFECT WORK CONTRACTING LLC	ON-GOING
HOOKAH PLACE, DIFC	AVEA CONTRACTING	ON-GOING
G+1 VILLA IN KHAWANEEJ 2 <sup>ND</sup>	BAB AL NOOR TECHNICAL SERVICES	ON-GOING
VILLA (G+1) ON PLOT NO. 3764327, AL BARSHA, DUBAI, UAE.	ADVANCE CONTRACTING LLC	COMPLETED
G+1 VILLA +SERVICE BLOCK ON PLOT NO. 1119, AL QARAIN 2, SHARJAH, UAE.	AL TALAB BUILDING CONTRACTING LLC	COMPLETED
B+G+M FLOOR + R SHOPPING CENTER AT PLOT NO. 262-1992, AL MIZHAR 1, DUBAI, UAE	AL MEMZAR CONTRACTING LLC	COMPLETED
G+4 LABOUR ACCOMMODATION AT PLOT NO. 684-192 ALTTAY, DUBAI	AIC CONTRACTING LLC (KHAMAS GROUP OF COMPANIES)	COMPLETED
MBR DHE CENTRAL PARK BUILDING 3 DUBAI HILLS ESTATES, UAE	LEADERS FORT CONTRACTING L.L.C.	COMPLETED
B+G+1+ROOF FLOOR VILLA AT PLOT NO. 266-1193, OUD AL MUTEENA 2 <sup>ND</sup> , DUBAI, UAE	ASHIYANA CONTRACTING LLC	COMPLETED
WAREHOUSE WORKSHOP & OFFICE (G+M) AT PLOT NO. 5330288 DIC, DUBAI, UAE	MARK ZONE BUILDING CONTRACTING LLC	COMPLETED
ADDITION/RENOVATION OF EXISTING GROUND + 1 VILLA AT PLOT NO. 617-4790 NAD AL SHIBA, DUBAI, UAE.	SUNSHINE OASIS CONTRACTING LLC	COMPLETED
EXTENSION TO EXISTING KINGS SCHOOL NAD AL HAMAR	HIGH RISE BUILDING CONTRACTING LLC	COMPLETED









# **QUALITY STATEMENT**

#### 1. Introduction

This document constitutes the Quality Plan of the Smart Roof Insulation Contracting projects and is an appendix to the project plan [1].

#### 1.1 Purpose and objectives

Quality Management in a project assures the quality of the project deliverables and the quality of the processes and procedures used to manage and develop the deliverables.

The purpose of this document is to describe the necessary information required to effectively manage project quality, from project planning to delivery, comprising quality objectives in the project, roles and responsibilities, and the Quality Management approach to ensure that the quality objectives are achieved.

The intended audience is the project team and any senior leaders whose support is needed to carry out the plan.

#### 1.2 Reviews and approval

This Quality Plan is to be continually reviewed, and any changes to the plan will be handled by the project's procedure for Change Management [1].

The plan is approved by the Project Manager.

#### 1.3 Document conventions

Square brackets [x] are used to indicate reference documents. The references are always made to the document's document name.

*Italic* is used for references to other sections in the document.

#### **1.4 Definitions**

TERM/ABBREVIATION	DESCRIPTION
Confluence	Confluence is team collaboration software used in the project, amongst others as project repository.
Customer Satisfaction	The customer satisfaction criteria describe when each deliverable is complete and acceptable as defined by the customer. Deliverables are evaluated against these criteria.
DBR	Design-Based Research
Design Based Research	A type of research methodology commonly used by researchers in the learning sciences. Within Design-Based Research methodology, interventions are conceptualized and then implemented iteratively in natural settings in order to test the ecological validity of dominant theory and to generate new theories and frameworks for conceptualizing learning, instruction, design processes, and educational reform.  Data analysis often takes the form of retrospective, crossiteration comparisons. (Wikipedia)
Project Audit	A Project Audit aims to verify if the project is being managed properly according to the organization's standards and guidelines, and that the project plan is being followed. The main purpose of the Project Audit is to identify any project management errors that may have occurred during the execution of the project.
Project Review	A Project Review is a "health check" of the project. The main purpose of the Project Review is to make sure that the project is on time, on schedule, on scope, and on budget, as well as highlighting key issues the project is facing.
QA	Quality Assurance
QM	Quality Management
Quality Assurance	A part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO9000).
Quality Control	A part of quality management focused on fulfilling quality requirements (ISO9000).
Quality Management	Quality management includes all the activities that organizations use to direct, control, and coordinate quality. These activities include formulating a quality policy and setting quality objectives. They also include quality planning, quality control, quality assurance, and quality improvement. (ISO9000)
Quality Objective	A Quality Objective is a quality result that you intend to achieve. Quality objectives are based on or derived from an organization's quality policy and must be consistent with it. They are usually formulated at all relevant levels within the organization and for all relevant functions. (ISO9000)

Quality Standard	<ul> <li>A Quality standard is the measure used to determine;</li> <li>if the project work processes are being followed,</li> <li>A successful outcome for a project deliverable.</li> </ul>
Review	Review of a specific process or activity in order to verify that the process or activity is sufficient for its purpose and is applied and followed.
Solution Validation	A Solution Validation aims to ensure a solution is of sufficient level of originality.
Stakeholder Expectations	Stakeholder expectations describe when a project process is effective as defined by the project stakeholders. An example is the review and approval of all high impact changes to the project.

#### 1.5 Appendices and references

- [1] Project Plan
- [2] Project deliverables
- [3] Document Standard

#### 2. Quality Objectives

The Quality Objectives for Quality Management in the SRI Contracting project are to assure that:

- Project deliverables meet their stated requirements.
- Project Management processes are appropriately followed.

They answer the questions:

- o What is it the project shall achieve, that is, what is the expected result?
- o How can we judge if the project is carried out in a good way, so that the expected result is achieved?

In the Smart Roof Insulation Contracting project, the overall Quality Objectives are:

- 2.1 Project Management
- 2.2 Planning
- 2.3 IT Development
- 2.4 Trial and testing
- 2.5 Evaluation
- 2.6 Standardization
- 2.7 Dissemination & scaling-up

#### 3. Quality Management Approach

The quality management approach is about to ensure that all personnel in the project "does the right things, right, the first time". Thus avoiding misunderstandings of what to produce and how, resulting in productivity losses, quality losses and schedule delays.

This is going to be achieved by

- Early identification and reviews of all quality-impacting documents.
- Reviews of all quality-impacting documents.
- Using the well-defined and anchored quality standards and procedures already in use for each work package.
- Using Customer Satisfaction as a Quality Control tool in case quality standards and procedures are missing and/or there are no documented processes/processes procedures do not exist in any form.

#### 4. Quality Control

The Quality Control in the project focuses on the deliverables of the project, and monitors them in order to verify they are complete, correct, and of acceptable quality.

#### 4.1 Project deliverables

A list of project deliverables [2] is maintained by the project management, covering:

- ID
- Name
- Type
- Description
- Responsible
- Planned delivery date
- Applied Quality Standards/Customer satisfaction
- Quality Control
- Acceptance Criteria covering criteria for completeness and correctness
- Approved by
- Approval date
- Status
- Comments

Quality affecting documents such as this Quality Plan, project plans, work-plans, etc. shall be prepared and controlled in accordance with this quality plan and approved processes. These documents shall receive the required reviews and approvals; be uniquely identified, and their distribution must be formally established.

Other essential policies, plans, procedures, decision, data and transactions produced by each work package are documented to an appropriate level of detail. Document reviews by subject matter experts; management and Quality Assurance are performed as appropriate and as specified in the referred Quality Standard.

#### 4.2 Deliverable Quality Standards

#### 4.2.1 Document Management

The document standard to be used is described in [3], which also covers the mandatory templates to be used within the project and the procedures for document reviews.

#### 4.2.2 Design-Based Research, DBR

DBR will be used to develop a methodology to evaluate the software platform for automatic recognition of academic achievements and its impact on student mobility, which may be used not only for the experimentation carried in this project, but also in other field trials.

#### 4.3 Quality Control Activities

In the project deliverables list [2] quality control activities are specified for each deliverable.

The main quality control activity to determine whether the results conform to requirements is Inspection, which is to be carried out in different forms;

#### 4.3.1 Examining

#### 4.3.1.1 Document Review

Methodically go through the document to be examined, to verify the quality of the document, validate the content, identify faults and shortcomings, and to disseminate knowledge of its content.

#### 4.3.1.2 Solution Validation

Aims to ensure a solution is of sufficient level of originality.

Solution validations shall be part of the quality procedures in all Work Packages, but may also be called for by Project Management or be part of the project reviews.

#### 4.3.1.3 Code Review

Code Reviews will be done in various forms such as pair programming, informal walkthroughs, and formal inspections.

#### 4.3.2 Testing

Testing (functional and non-functional) against defined acceptance criteria.

#### 5. Quality Assurance

The focus of the Quality Assurance is on the processes used in the project. The Quality Assurance aims to ensure that the processes in the project and the work packages are

Used effectively to develop quality project deliverables.

#### **5.1 Project Processes**

<Project processes subject to quality assurance>

#### 5.2 Process Quality standards

#### 5.2.1 Project Management

The method used in the project for Project Management is based on PMBOK.

#### 5.3 Quality Assurance Activities

#### 5.3.1 Project Audit

Project Audits will be conducted in order to measure the application of the approved Project Plan and discover deviations that can be negative for the project.

Planned: <TBD>

Participants: Project Manager, Quality Manager and Work Package Leads

Result: Recommended actions.

**Documentation:** Project Audit Report

#### 5.3.2 Project Review

Project Reviews will be conducted in order to discover any deviations from and/or risks related to time, schedule, scope, and budget which can threaten the project and/or the outcome of the project.

Planned: <TBD>

Participants: Project Manager, Quality Manager and Work Package Leads

**Result:** Recommended actions.

**Documentation:** Project Review Report

#### 5.3.3 Quality Audit

Quality Audits will be conducted in order to o measure the application of the approved Quality Plan and discover deviations that can be negative for the project and/or the outcome of the project.

Planned: <TBD>

Participants: Project Manager, Quality Manager and Work Package Leads

**Result:** Recommended actions.

**Documentation:** Project Audit Report

#### 5.3.4 Review

A Review may be called for by anyone in the project in order to verify that a process or activity is sufficient for its purpose and is applied and followed.

Participants: Quality Manager and Work Package Lead

**Result:** Recommended actions. **Documentation:** Review Report

#### 6. Roles and responsibilities

#### 6.1 Project Manager

The Project Manager is accountable for Quality Management in the project and approves the Quality Plan.

#### 6.2 Quality Manager

The role of Quality Manager reports to the Project Manager and aims to ensure that the deliverables of the project are fit for purpose, is consistent and meets both external and internal requirements. This includes regulatory compliance and customer expectations. The Quality Manager conducts quality assurance activities like audits and reviews to ensure that processes and procedures in the project are sufficient for their purpose and are applied and followed.

The role includes responsibility for:

- Devise and establish the project's quality procedures, standards and specifications.
- Review project requirements and makes sure they are met.
- Compile, assess and set standards for quality.
- Establish and maintain control and documentation procedures.
- Monitor performance by gathering relevant data and produce quality reports.
- Make suggestions for changes and improvements and how to implement them.
- Manage reported deviations from the Quality Plan, either by ensuring that the Quality Plan is followed, or through a Change Request adapting the Quality Plan to better reflect the reality of the project.

#### 6.3 Work Package Lead

The Work Package Lead participates in the work to together with the Quality Manager compile and customize Quality Objectives and Standards for the Work Package, ensure compliance with those standards, and to report deviations and needs for changes to the Quality Manager.

#### 6.4 Project Member

Although the Quality Manager is responsible for Quality Management in the project, all project members are responsible to follow the Quality Plan and report directly to Work Package Lead or the Quality Manager when one considers that the quality plan deviates from reality, or that it is not followed.

#### 7. Tools

The list below list and describe the tools that the project will utilize to help manage and control quality on the project.

- Confluence
- <Standard spreadsheets>
- <Templates>
- <Software tools>
- <Development packages>

#### 8. Reporting

Either by the DMS

Either by emailing system

Either by written manual transmittals

# **POLICY**

#### **PART ONE**

General Statement of Policy, Duties & Responsibilities

#### 1.1 Policy Statement

The Smart Roof Insulation System recognizes and accepts its health and safety duties for providing a safe and healthy working environment (as far as is reasonably practicable) for all its workers (paid or volunteer) and other visitors to its premises under the Health and Safety at Work Act 1974, the Fire Precautions (Workplace) Regulations 1997, the Management of Health and Safety at Work Regulations 1999, other relevant legislation and common law duties of care.

Throughout this Statement, terms such as "staff", "workers", "employees", include both paid and volunteer workers.

It is the policy of the Group/Organisation to promote the health and safety of the committee members, volunteers, and staff and of all visitors to the Groups/Organisation's premises ("the Premises") and to that intent to:

- Take all reasonably practicable steps to safeguard the health, safety and welfare of all personnel on the premises;
- Provide adequate working conditions with proper facilities to safeguard the health and safety of personnel and to ensure that any work which is undertaken produces no unnecessary risk to health or safety;
- Encourage persons on the premises to co-operate with the Organisation in all safety matter, in the identification of hazards which may exist and in the reporting of any condition which may appear dangerous or unsatisfactory;
- Ensure the provision and maintenance of plant, equipment and systems of work that are safe;
- Maintain safe arrangements for the use, handling, storage and transport of articles and substances;

- Provide sufficient information, instruction, training and supervision to enable everyone to avoid hazards and contribute to their own safety and health;
- Provide specific information, instruction, training and supervision to personnel who have particular health and safety responsibilities (e.g. a person appointed as a Health and Safety Officer or Representative);
- Make, as reasonably practicable, safe arrangements for protection against any risk to health and safety of the general public or other persons that may arise for the Groups/Organisation's activities;
- Make suitable and sufficient assessment of the risks to the health and safety of employees and of persons not in the employment of the Groups/Organisation arising out of or in connection with the Groups/Organisation's activities;
- Make specific assessment of risks in respect of new or expectant mothers and young people under the age of eighteen;
- Provide information to other employers of any risks to which those employer's workers on the Groups/Organisation's premises may be exposed.
- This policy statement and/or the procedures for its implementation may be altered at any time by the Groups/Organisation's Management Committee ("the Committee"). The statement and the procedures are to be reviewed in the (autumn) of each year by the Health and Safety Sub-committee or by other persons appointed by the Committee. A report on the review, with any other proposals for amendment to the statement of procedures, is to be made to the next following ordinary meeting of the Management Committee.

#### 1.2 Statutory Duty of the Group/Organisation

- The Group/Organisation will comply with its duty to ensure, as far as is reasonably practicable, the health, safety and welfare at work of its workers and of visitors to its premises and, in general, to:
- Make workplaces safe and without risks to health;
- Ensure plant and machinery are safe and that safe systems of work are set and followed;

- Ensure articles and substances are moved, stored and used safely;
- Give volunteers/ workers the information, instruction, training and supervision necessary for their health and safety.
- In particular, the Group/Organisation will:
- Assess the risks to health and safety of its volunteers/workers;
- Make arrangements for implementing the health and safety measures identified as necessary by this assessment;
- Record the significant findings of the risk assessment and the arrangements for health and safety measures;
- Draw up a health and safety policy statement; including the health and safety organisation and arrangements in force, and bring it to the attention of its workers;
- Appoint someone competent to assist with health and safety responsibilities;
- · Set up emergency procedures;
- Provide adequate First Aid facilities;
- Make sure that the workplace satisfies health, safety and welfare requirements, e. g. for ventilation, temperature, lighting and for sanitary, washing and rest facilities;
- Make sure that work equipment is suitable for its intended use as far as health and safety is concerned, and that it is properly maintained and used;
- Prevent or adequately control exposure to substances that may damage health;
- Take precautions against danger form flammable or explosive hazards, electrical equipment, noise or radiation;
- Avoid hazardous manual handling operations and, where they cannot be avoided, reduce the risk of injury;
- Provide health surveillance as appropriate;
- Provide free any protective clothing or equipment, where risks are not adequately controlled by other means;
- Ensure that appropriate safety signs are provided and maintained;
- Report certain injuries, diseases and dangerous occurrences to the appropriate health and safety enforcing authority.

#### 1.3 Statutory Duty of the Groups/Organisation's Workers

Employees also have legal duties, and the Organisation confidently requests non-employed (voluntary) workers also to observe these. They include the following:

- To take reasonable care for their own health and safety, and that of other persons who may be affected by what they do or do not do;
- To co-operate with the Group/Organisation on health and safety;
- To use work items provided by the Group/Organisation correctly, including personal protective equipment, in accordance with training or instructions;
- Not to interfere with or misuse anything provided for health, safety and welfare purposes;
- To report at the earliest opportunity injuries, accidents or dangerous occurrences at work, including those involving the public and participants in activities organised by the Group/Organisation;
- Health and Safety law applies not only to employees in the workplace, it
  also applies to organisations and people who occupy or use community
  buildings to which members of the public have access.

#### 1.4 Policy for Visitors and Contractors

On arrival all visitors should be directed to the duty representative of the Management Committee, or a representative of the user/hirer of the building. This person is to take responsibility for the visitor(s) and assist in their evacuation from the building during an emergency or arrange help in the event of an accident.

On arrival, all visitors, including contractors and/or their workers, must sign a record of the date and time of their arrival and, before leaving, should further record their time of departure.

Contractors working in the building should report any concerns relating to their own safety or suspected unsafe working practices to the Duty representative of the Committee who will investigate and report to the Group/Organisation.

#### **PART TWO**

#### Organisation of Health and Safety

#### 2.1 Health and Safety Sub-committee

The Management Committee will appoint a Health and Safety Sub-committee, including representation both of themselves and of staff (both paid and volunteer):

- To have a broad overview of Health and Safety matters;
- To keep the Organisation's Health and Safety policy and procedures under review;
- To conduct safety tours of the premises;
- To ensure that risk assessments are carried out, including assessments regarding substances hazardous to health (COSSH Regulations);
- To take such action as may be required to ensure that the Organisation's responsibilities for Health and Safety are fulfilled;
- To report to the Management Committee on their performance of these responsibilities.
- Contractors working in the building should report any concerns relating to their own safety or suspected unsafe working practices to the Duty representative of the Committee who will investigate and report to the Organisation.

#### **Safety Tours**

The Health and Safety Committee shall carry out 6-monthly tours and inspections of the premises and make a report to the next ordinary meeting of the Management Committee.

All necessary actions as a result of the tour shall, where reasonable and practicable, be implemented. The tour shall include inspection of the Accident File.

#### 2.2 Health and Safety Rules

All workers must exercise ordinary care to avoid accidents in their activities at work and comply with the following general rules and with any further rules which the Group/Organisation may publish from time to time.

#### **Accident Forms and Book**

The book must be kept in a locked drawer once completed.

Any injury suffered by a worker or visitor in the course of employment or otherwise on the Groups/Organisation's premises, however slight, must be recorded, together with such other particulars as are required by statutory regulations, on an accident form maintained by the Organisation.

#### Fire Precautions

All personnel must familiarise themselves with fire escape routes and procedures and follow the directions of the Group/Organisation in relation to fire.

#### **Equipment and Appliances**

No equipment or appliance may be used other than as provided by or specifically authorized by or on behalf of the Group/ Organisation and any directions for the use of such must be followed precisely.

#### **Safety Clearways**

Corridors and doorways must be kept free of obstructions and properly lit.

Maintenance Defective equipment, furniture and structures must be reported as such without delay.

#### Hygiene and Waste Disposal

Facilities for the disposal of waste materials must be kept in a clean and hygienic condition.

Waste must be disposed of in an appropriate manner and in accordance with any special instructions relating to the material concerned.

#### Food Hygiene

- When handling or preparing food there are specific hygiene requirements:
- Regularly wash hands before and during food preparation and especially after using the lavatory;
- Tell your supervisor or representative of the Committee of any skin, nose, throat, or bowel problem;

- Ensure cuts or sores are covered with correct waterproof dressings;
- Keep yourself clean and wear clean clothing;
- Remember that smoking in a food room is illegal;
- Never cough or sneeze over food;
- Clean as you go. Keep all equipment and surfaces clean;
- Prepare raw and cooked food in separate areas. Keep perishable food covered and either refrigerated (less than 8"C) or piping hot (above 63"C);
- Ensure waste food is disposed of properly. Keep the lid on rubbish bin and wash your hands after putting waste in it;
- Avoid handling food as far as possible;
- Tell your supervisor or representative of the Committee of any defects or concerns regarding the facilities – eg uncleanness, refrigeration malfunction, and cracked food preparation surfaces.

#### **Display Screen Equipment**

The Group/Organisation recognises its responsibility to ensure the well-being of workers who habitually use display screen equipment for a significant part of their normal work.

Volunteers/Workers are advised to ensure that they take a five minute break from the display screen equipment at least once an hour and are advised that, if they experience vision defects or other discomfort that they believe may be wholly or in part a consequence of their use of such equipment, they have the right to an eye-test at the Organisation's expense.

Alcohol, Drugs and Tobacco Smoking within the premises and the use of Drugs (except under medical supervision) on the premises are prohibited at all times. The use of intoxicants (alcohol) is prohibited during working hours, and no employee/volunteer may undertake his/her duties if under the influence of alcohol or drugs (except under medical supervision)

#### **PART THREE**

#### **Arrangement and Procedures**

The Health and Safety Officer, nominated by the Management Committee, is responsible for ensuring that the safety policy is carried out and that responsibilities for safety, health and welfare are properly assigned and accepted at all levels. His/her details and contact number will be displayed

#### 3.1 First Aid and Accident Reporting

#### 3.2 Fire Drills and Evacuation Procedures

#### 3.1.1 First Aid

- The current First Aider(s) for the premises is/are displayed (on the Notice Board in the Reception Area).
- First Aid Boxes are provided in the following location(s):
  - Reception (example)
  - Kitchen (example)

#### 3.1.2 Accidents

- In the event of an injury or illness, call for a member of staff or ring for an ambulance directly. To call an ambulance – dial 999 and ask for "ambulance":
- All accidents must be reported to the Health and Safety Officer or another member of staff on duty immediately or as soon as practicable;
- All accidents must be entered on an accident form, available from the reception desk. The procedures for "notifiable" accidents as shown in Appendix A below must be followed;
- The Health and Safety Officer will investigate incidents and accidents, writing a detailed report for the Organisation's Management Committee to consider the actions necessary to prevent recurrence.

#### 3.2 Fire Drills and Evacuation Procedures

#### 3.2.1 Fire Drills

- All workers and volunteers must know the fire procedures, position of fire appliances and escape routes.
- The fire alarm points, fire exits and emergency lighting system will be tested by The Fire Officer/Health and Safety Officer during the first week of each month and entered in the log book provided.
- The Fire Officer will arrange for Fire Drills and Fire Prevention Checks (see Appendix C below) to be carried out at least once every three months and entered in the log book. In addition, these Drills will be carried out at different times and on different days, so that all users/hirers know the procedures.
- The last person securing the premises will ensure Fire Prevention Close
   Down Checks are made of all parts of the premises at the end of a session.

#### 3.2.2 in the event of Fire

- Persons discovering a fire should sound the nearest alarm;
- The first duty of all workers is to evacuate all people from the building by the nearest exit immediately the fire is discovered;
- All persons must evacuate the building and, where possible without personal risk, leave all doors and windows closed;
- The assembly point for the building is at the ......
- No-one should leave the assembly point without the permission of a member of staff;
- If any fire occurs, however minor, the Fire Brigade must be called immediately by dialing 999 and asking for "Fire";
- When the Fire Brigade arrives advise whether all persons are accounted for and location of fire.

#### 3.2.3 Bomb Warnings

- If you receive a warning try to find out from the caller:
  - The approximate location of the bomb and likely time of detonation;
  - Whether the police and fire brigade have been notified;
  - o Try to RECORD EXACTLY WHAT IS SAID:
- Notify the Police immediately on 999;
- DO NOT SOUND THE FIRE ALARM but evacuate the building taking into consideration any information from the bomb warning;
- Assemble in the ...... unless the bomb warning implies otherwise.

#### 3.2.4 Theatre – and Public Entertainment – Licensed Events

- In addition to the general conditions of the license(s):
- Hirers/users must be aware of the Health and Safety Policy;
- Emergency lights in the areas used must be kept illuminated;
- Advise the representative of the Management Committee of any defects or concerns regarding the facilities, e. g. uncleanness, refrigeration operation, cracked food preparation surfaces.

#### 3.2.5 Cleaning Materials, General Machinery and High Risk Areas

- All portable machinery must be switched off and unplugged when not in use;
- · Wandering cables are a hazard; use with caution and safety in mind;

- Slippery floors and dangerous; use warning signs;
- Use protective clothing and equipment provided and as instructed on machinery/equipment/material. It is the duty of a worker to report any loss of or defect in protective clothing or equipment.

#### 3.2.6 General

- All thoroughfares, exits and gates must be left clear at all times;
- Corridors and fire exits must not be blocked by furniture or equipment;
- Vehicles must not be parked near to the building so as to cause any obstruction or hazard;
- Hazards or suspected hazards or other health and safety matters should be reported to the Health and Safety Officer or the staff member on duty immediately or as soon as practicable, so that action can be taken. If the hazard is of a serious nature, immediate action must be taken to protect or clear the area to prevent injury to staff or other users.

#### PART FOUR

#### **Appendices**

#### APPENDIX A - ACCIDENT REPORTING

#### 1. Accidents

All accidents which occur during work for the Group/Organisation and/or for the User/Hirer, or on premises under the control of the Group/Organisation must be recorded.

#### 2. Accidents to Workers or Contractor's Staff

- For ALL Accidents
- Complete Accident Form and give to Health & Safety Officer
- For accidents reportable to the Health & Safety Executive (for contractors see c))
- If accident results in incapacity for work for more than 3 calendar days then complete the online form F2508 with copies to the Chair of the Management Committee.
- If accident results in fatality, fracture, amputation or other specified injury (see section 4, below) then immediately notify:
- Health & Safety Executive on HSE's Info line Tel: 0845 345 0055
- And the Chair of the Management Committee

- Follow up within seven days with completed online form F2508 with copies to the Chair of the Management Committee
- If a reportable accident involves a contractor's employee and the premises are under the control of someone other than the contractor then the person in control of the premises is responsible for reporting the accident.
- If a contractor's employee is at work on premises under the control of the Contractor then it is the contractor or someone acting on his/her behalf that is responsible for reporting the accident.

#### 3. Accidents to Members of the Public

- 1. For ALL Accidents
- 2. Complete Accident Form and give to Health & Safety Officer
- 3. For accidents reportable to the Health & Safety Executive
- 4. If an accident results in fatality, fracture, amputation or other specified injury (see section 4 below) then immediately notify:
- 5. Mob:+971 50 224 0928
- 6. Email: info@sric.ae or sales@sric.ae
- 7. Some injuries may not be fully identified until the casualty has been to hospital. It is therefore essential that, if it is known that an individual has gone to hospital as a result of an accident, follow up action is carried out.

#### 4. Definition of Specified Major Injuries or Conditions

- Fracture of the skull, spine or pelvis; any bone in the arm or wrist, but not a bone in the hand; any bone in the leg or ankles, but not a bone in the foot.
- Amputation of; a hand or foot, a finger, thumb or toe; any part thereof if the
  joint or bone is completely severed
- Other specified injuries and conditions:
  - The loss of sight of an eye; a penetrating injury to the eye, or a chemical or hot metal burn to an eye
  - Injury (including burns) either requiring immediate medical treatment, or involving loss of consciousness, resulting (in either case) from electric shock from any electrical circuit or equipment, whether or not due to direct contact
  - Loss of consciousness resulting from lack of oxygen

- Decompression sickness requiring medical treatment
- Either acute illness requiring treatment, or loss of consciousness, resulting (in either case) from absorption of any substance by inhalation, ingestion or through the skin
- Acute illness requiring medical treatment where there is reason to believe that this resulted from exposure to a pathogen or infected material
- Any other injury which results in the person injured being admitted immediately into hospital for more than 24 hours
- IF IN DOUBT REPORT IT

#### 5. Dangerous Occurrences

In the event of any of the following:

- Collapse/Overturning of machinery
- Explosion/collapse of closed vessel/boiler
- · Electrical explosion/fire

Notify the following immediately:

Mob: +971 50 224 0928 | Email: info@sric.ae

And the Chair of the Management Committee

#### 6. Occupational Diseases

- Poisoning
- Skim Diseases
- Lung Diseases
- Infections

Full details of Dangerous Occurrences and Occupational Diseases can be found in HSE RIDDOR Booklets 11 and 17.

IF IN DOUBT REPORT IT

Appendix B - CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH REGULATIONS)

#### 1. Assessment

- The assessment must be a systematic review
- What substances are present and in what form?
- What harmful effects are possible?

- Where and how are the substances actually used or handled?
- What harmful effects are given off, etc.?
- Who could be affected, to what extent and for how long?
- Under what circumstances?
- How likely is it that exposure will happen?
- What precautions need to be taken to comply with the COSHH Regulations?
- What procedures need to be put in place to comply with the Control of Asbestos at Work Regulations 2002?

#### 2. Prevention or Control

Employers have to ensure that the exposure of workers to hazardous substances is PREVENTED or, if this is not reasonably practicable ADEQUATELY CONTROLLED.

On the basis of the assessment, the employer has to decide which control measures are appropriate to the work situation in order to deal effectively with any hazardous substances that my present. This may mean PREVENTING exposure by

- Removing the hazardous substance by changing the process
- Substituting with a safe or safer substance, or using a safer form Or, here this is not reasonably practicable, CONTROLLING exposure by
- Totally enclosing the process
- Using partial enclosure and extraction equipment
- General ventilation
- Using safe systems of work and handling procedures

It is for the employer to choose the method of controlling the exposure and to examine and test control measures, if required.

The Regulations limit the use of Personal Protective Equipment (e.g. dust masks, respirators, protective clothing) as the means of protection of those situations ONLY where other measures cannot adequately control exposure.

Employers must provide any of their workers and, so far is reasonably practicable, other persons on site who may be exposed to substances hazardous to health, with suitable and sufficient information, instruction and training to that they know the risks they run and the precautions they must take.

Employers must ensure that anyone who carries out any task in connection with their duties under COSHH has sufficient information, instruction and training to the job properly.

#### Appendix C - FIRE PREVENTION

- 1. Has the Fire brigade been consulted on?
  - The number and width of escape routes so as to provide a ready means of escape from all parts of the premises?
  - Emergency lighting and its maintenance?
  - The most suitable way of raising an alarm in the event of fire?
  - The contents of fire instruction notices?
  - The numbers and types of fire extinguishers or other fire-fighting appliances which should be provided?
  - Precautions to be taken with any activities involving the use of flammable liquids, naked flames or heating processes?
  - The desirability of battening or clipping seats together in sets of four where moveable seats are used for large audiences?
  - The maximum number of people who should be allowed on the premises at any one time?
  - Are seating and gangways in the hall/rooms so arranged as to allow free and easy access direct to fire exits?
  - Are exit doors always unlocked before the start of any session and kept unlocked until the last person leaves?
  - Are escape routes and exit doors clearly sign-posted and marked so that anyone not familiar with the building can quickly see the ways out?
  - Are escape routes and exit doors never allowed to become obstructed or hidden by chairs, stage props, curtains etc.?

#### 2. Is Fire Equipment properly looked after?

- Are fire extinguishers, hose reels and fire alarm systems (where provided) regularly maintained by specialist fire engineering firms?
- Are staff/duty officers trained to use this equipment?
- Is equipment kept in its proper position and always clearly visible and unobstructed?
- Are thorough close-down checks made of all parts of the premises at the end of an evening or session?

- No smoldering fires or cigarettes left burning?
- Heater and cookers turned off?
- Televisions and other electrical apparatus turned off and unplugged?
- Lights off?
- Internal doors closed?
- Outside doors and windows closed and secured?

#### 4. Are all reasonable steps taken to prevent fires?

- Smoking not allowed in store rooms or backstage?
- Substantial ashtrays provided in areas where smoking is permitted?
- Heating appliances fitted with adequate and secure fire guards?
- If portable heaters have to be used, are they securely fixed and kept away from combustible materials?
- Precautions to ensure that convector type heaters are not covered with clothes and curtains?
- Temporary extensions or additions to the electrical installation carried out and checked by a competent electrician?
- Sufficient socket outlets provided to obviate the need for long trailing flexes?
- Damaged leads replaced regularly?
- Cooking operations supervised by a reliable person?
- Scenery, decorations and costumes for stage performances treated to make them flame retardant?
- All parts of the premises kept clear of waste and rubbish, particularly staircases, space under stairs, store rooms, attics and boiler rooms?

#### Appendix D – HEALTH AND SAFETY INSPECTION

#### 1. Inspection

- A Health and Safety inspection of the building should be undertaken at least every six months. One of these inspections may be undertaken at the same time as the annual building maintenance check.
- Appointed members of the Management Committee, or a sub-group,
   should arrange to meet and carry out the inspection
- This inspection group will need to agree how each question needs to be answered

- When the form is complete and has been signed, matters noted as not satisfactory, together with any other concerns raised by the inspection, should be reported to the Management Committee.
- The inspection group should be authorised, where URGENT action is necessary, to make immediate reasonable response
- The whole form should be made available to members of the Management Committee
- The forms should be preserved in a file maintained for this purpose.
   As required action is taken, the responsible person should initial the form in the appropriate box

#### 2. Risk Assessment

- Risk assessments relate to activities within the premises or grounds
- Risk assessments NEED to be carried out in relation to every activity undertaken, whether by groups or individuals and including the work of paid staff AND volunteers
- Special attention should be paid to the circumstances of workers under the age of eighteen and to expectant mothers, women who have given birth within the past six months or who are breastfeeding
- A risk assessment needs to be carried out whenever a new activity is envisaged
- Assessments need to be repeated whenever circumstances change:
  - Changes in layout of equipment
  - Observing trends on the accident form
  - Changes in staff
  - Introduction of new procedures, processes or materials

#### Appendix E – DISPLAY SCREEN EQUIPMENT

#### 1. Who is a Display Screen User?

- The regulations are for the protections of workers (including selfemployed workers and volunteers) who habitually use display screen equipment for a significant part of their normal work.
- In some cases it will be clear that the use of Display Screen Equipment is more or less continuous on most days and the individual concerned should be regarded as users. Where use is less continuous, 'user' status would apply if most or all of the following criteria are met:

- The individual depends on the use of display screen equipment to do the job, as alternative means are not readily available for achieving the same results.
- The individual has no discretion as to the use or non-use of the display screen equipment
- The individual needs significant training and/or particular skills in the use
   of display screen equipment to do the job
- The individual uses display screen equipment in this way more or less daily
- Fast transfer of information between the user and the screen is an important requirement of the job
- The performance requirements of the system demand high levels of attention and concentration by the user; for example where the consequences of error may be critical.

#### 2. Workers' Entitlement

#### 2.1 Eye Test

Any worker covered by the Regulations is entitled to request an eye and eyesight test which will be paid for by the employer. Workers should inform their line manager, who will provide them with the forms to take to an option of the worker's choice.

A worker may request a test if he/she:

- Is already a user for a significant part of his/her work
- Is about to start using display screen equipment for a significant part
  of his/her work o Is experiencing visual difficulties which may
  reasonably be considered to be related to display screen work
- It is recommended by an option at the time of an eye examination that the worker should have eye tests at regular intervals

#### 2.2 Spectacles

If as a result of the eye test a worker requires spectacles solely for use with display screen equipment, he/she is entitled to reimbursement of the cost of a basic pair. If the worker wishes to choose more costly spectacles (e.g. a more expensive frame), the employer is not obliged to pay the full cost of these. In this event the worker will only be reimbursed for the cost of basic spectacles.

If as a result of the tests spectacles are required for normal use, e.g. reading or distance vision, but which may also include display screen equipment use, under the Regulations the employer is not required to make reimbursement beyond the cost of the eyesight test and the report.

#### 2.3 Who pays the Optician?

The worker pays the option and then obtains the reimbursement, attaching the receipt(s) and any report to the form DSE1, and gives these to his/her Line Manager who will arrange reimbursement.

We request that our Staff, Volunteers, Member and Visitors respect this Policy, a copy of which will be available on demand.

Approved by the Management Committee Signed.....

(Chair of Smart Roof Insulation Contracting)

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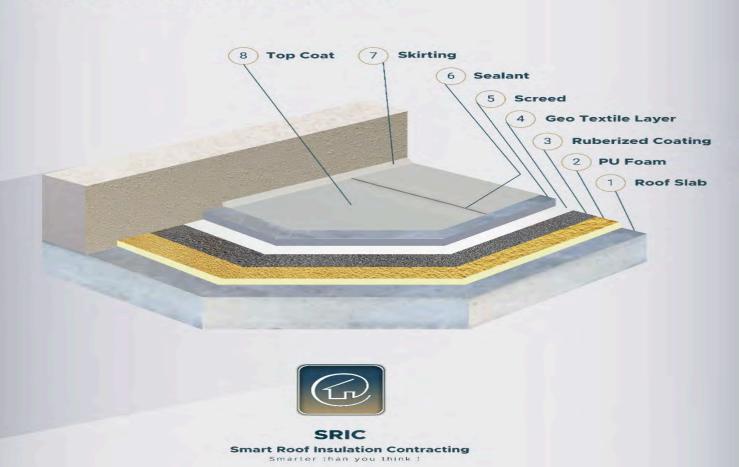




# **Smart Roof Insulation Contracting**

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#### **Roof Combo System Description**



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