



TECHNICAL SUBMISSION FOR
COMBO ROOF
(Waterproofing & Thermal insulation System)



Index

- Introduction
- HSE Policy
- Materials TDS
- Specification
- Procedure & Scope of Work
- Section Drawing
- Guarantee Certificate Specimen
- Trade License
- Consultant Approval Request Form



INTRODUCTION



INTRODUCTION

Prompt Insulations L.L.C was formed in 2016. This company is specialized in Roof Waterproofing & Thermal Insulation.

Our Company is led by dynamic and experienced professionals in the same industry. We have never compromised on the quality and the services provided to the customers. We believe in keeping the customers happy and providing them with services at a very competent price.

Our Mission:

- Provide our customers a level of service unequalled in the same industry.
- Consistent quality in any quantity.

Service's offered by us:

- Combo Roof Waterproofing System.
- Wet Area waterproofing for Bath rooms & Balcony's.
- Industrial roof waterproofing & Thermal insulation.
- Smart Care Re-roofing system.
- General maintenance on wet area & roof waterproofing.



HSE POLICY



HSE Policy

Our safety policy ensures the responsibility to protect the health and safety of our employees and protect the environment around it while its activities are on-going.

At Prompt Insulations, safety is our primary concern and priority. The company is fully committed to integrate safety measures in its works programs.

General Rules

- Do not use defective tools or equipments.
- Never leave power tools with connections to power source.
- Use always the right tool for the right purpose.
- Use eye protection whenever there is a risk of flying objects.
- Use face mask while undertaking spray applications.
- Always wear hard-hat and shoes while working at site.
- Wear hand gloves while using hammering equipments and chemicals.
- Never stand near falling weights and aisles.
- Never try to stop moving objects with sharp edges using bear hands.
- Never stand on moving equipments.
- Make sure of good housekeeping.
- Report all injuries immediately to superiors.
- Know where to locate the first aid in the event of an emergency.

Health, Safety and Environment Protection Plan

- Keep the working area free of loosely lying tools and equipments.
- All spillages should be effectively cleaned to avoid any slippery effect.
- A safe storage area to be demarcated and secured prior to arrival of raw material to work site.
- Assign responsibilities to individuals depending on the size of the job, for issue of materials from the storage area.
- Provide trash at site to collect and dispose wastes that accumulate on a daily basis.



MATERIALS - TDS



The Chemical Company

Elastogran Kanoo Polyurethane Systems LLC
Page 1/3

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Technical Data Sheet

Elastospray H 1611/16

Application

PU spray foam system for the production of spray foam for insulation as well as water proof application. The system can be applied on substrate like metal, plywood and concrete. Suitability must be examined by the user prior to commercial use.

Chemical Characteristics

Polyol-Component: mixture of polyols, fire retardants, stabilizer, catalyst, blowing agent HGFC141 b
Iso-Component: polymeric diphenylmethane diisocyanate (IsoPMDI 92140)

Supply

The type of supply for the components will be decided after consultation with our Sales Office.

Storage, Preparation

Polyurethane components are moisture sensitive. Therefore they must be stored at all times in sealed, closed containers. More detailed information should be obtained from the separate data sheet entitled "Information for in-coming material control, storage, material preparation and waste disposal" and from the component data.

Processing

For the processing follow the information provided by our technical adviser.

Possible Hazards

The B-component (Isocyanate) irritates the eyes, respiratory organs and the skin. Sensitisation is possible through inhalation and skin contact. PMDI is harmful by inhalation. On processing these, take note of the Necessary precautionary measures described in the Material Safety Data Sheets (MSDSs). This applies also for The possible dangers in using the A-component (Polyol) as well as any other components. See also our separate Information sheet "Safety- and Precautionary Measures for the Processing of Polyurethane Systems." Use our Training Programme "Safe Handling of Isocyanate."

Waste Disposal

More detailed information is provided in our country –specific pamphlet.

Consumer articles, medical products

There are national and international laws and regulations to consider if it is intended to produce consumer articles (eg articles that necessitate food or skin contact, toys etc.) or medical objects out of Elastogran's products. Where these do not exist, the current legal requirements of the European Union for consumer articles as well as medical products should be sufficient. Consultation with the Elastogran Sales Office and our Ecology and Product Safety Department is strongly recommended.

Elastogran Kanoo Polyurethane Systems Limited Liability Company established pursuant to Federal Law No. 8 of 1994 with a paid up share capital of AED 1 Mio.

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Page 2/3

Elastospray H 1611/16

Component Data

Characteristics	Unit	Component A Elastospray H 1611/16	Component B Iso PMDI 92140	Method
Specific Gravity (25°C)	—	1.14 ± 0.02	1.24 ± 0.02	EKPS-01-01
Viscosity (25°C)	Cps	450 ± 100	170 - 250	EKPS-02-01
Storage stability	Days	180	180	

*find below basic mix ratio

Processing Data

Cup test by Bench mixer at 3000 rpm

	Unit	specification	Method
Guide formulation	Component A	Elastospray H 1611/16 (pbw) = 100	
	Component B	Iso PMDI 92140 (pbw) = 100	
Component temperature	°C	20	
Quantity	g	A = 75 B = 75	
Mixing ratio		A : B = 100 : 100	
Stirring time	s	4	
Cream time	s	4 ± 2	EKPS-04-01
Gel time	s	8 ± 2	EKPS-04-01
Tack Free time	s	10 ± 2	EKPS-04-01
Density, free rise	kg/m ³	27.5 ± 0.5	EKPS-04-01

General Advice

It is not known whether this system is equally suitable for all types of sheet metal and primer offered on the market. Therefore, suitability must be examined by the user in each individual case.

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Page 3 / 3

Elastospray H 1611/16

Characteristics	Unit	Measured value	Test Method
Measured values were determined on specimens during the product approval/Approved product. Verification of these properties on production plants at user's site under prevailing production conditions is required.			
Density / overall	kg/m ³	40	ASTM D 1622
Closed cell content	%	90	ASTM D 6226
Thermal Conductivity	w/m ² K	0.0210	ASTM C 518
Compressive stress at 10% deformation	kPa	150	ASTM D 1621
Dimensional Stability -20°C for 48 hrs +70°C for 48 hrs	% change in volume	0.48 0.66	ASTM D 2126
Flammability	-	B3	DIN 4102

The data contained in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, this data does not relieve processors from carrying out their own investigations and tests; neither does this data imply any guarantee of certain properties, or the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weighs etc given herein may change without prior notice and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (Date of publication).

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Baymer[®] SHPU-40-27A

General Properties and Applications

Baymer[®] 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	

* 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[®] SHPU-40-27A

Directions for Processing

Baymer[®] 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 $\pm 2\%$ 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 Bayer 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 ³
Applied density	approx. 40-48	kg/m ³

Typical properties to be achieved under recommended application parameters:

Density	approx. 43-47 kg/m ³
Compressive strength	> 100 kPa
Fire rating (DIN4102-1)	B3
Water absorption	< 1 %
Initial thermal conductivity (ASTM C518)	0.0218 W/Km
Aged thermal conductivity @ 10 deg. C mean temperature	≤ 0.026 W/Km
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[®] 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.

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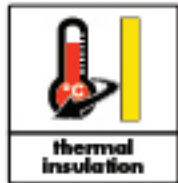
PU FOAM SS-40A

Two-component, spray-applied polyurethane foam system

PUFOAM SS-40A is an HCFCblown & CFC free, polymeric M.D.I based system to produce rigid polyurethane foam.

CHARACTERISTICS

- ▶ Spray applied
- ▶ CFC free & HCFC blown
- ▶ 40kg density



DESCRIPTION

PUFOAM SS-40A is a two-component, spray-applied polyurethane foam that creates a seamless, monolithic barrier against water vapor and air. PUFOAM SS-40A is an HCFCblown & CFC free, polymeric M.D.I based system for producing rigid urethane foam with a nominal core density of 40 kg/m³ by spray process. The system may be applied to substrates where the surface temperature is of the order of 25°C - 30°C. Grades, adjusted in reactivity, are available for both cold and hot condition.

FIELDS OF APPLICATION

- Roof spraying applications.
- Flooring and wall insulation.
- Storage tank insulation primer

COMPONENT PROPERTIES

MDI component is a dark brown colored, undistilled grade of polymeric diphenyl methane di-isocyanate (crude M.D.I).

- viscosity @ 20°C. : 150 - 200 cps
- specific gravity @ 20°C 1.24
- NCO content, % wt. 30-31

Polyol Component is a low viscosity blend of polyols, hydro fluorocarbon blowing agent, catalysts and surfactant

- viscosity @ 20°C Approx.450 cps.
- specific gravity @ 20°C : 1.16

STORAGE AND HANDLING

Store at room temperature in sealed drums. Moisture will react with this component to produce a surface skin of polymerized material. Protect from moisture and moisture vapour. Close all drums after use. Maximum permissible storage time is 6 months. The ideal storage temperature is between +20°C and +25°C. MDI may undergo partial crystallization at temperature below 0°C. The product can, however, be brought back into the liquid



TDS_PU Foam SS40A_GCC_1017

1

state by placing the container in a heating cabinet and carefully warming the entire contents for a short time to a maximum of 70°C. Safety goggles, impermeable protective gloves and coveralls should always be worn when handling this product. Contaminated clothing should be removed immediately to prevent further skin contact. Store at room temperature (below 25°C.) in sealed drums. Close all drums after use to prevent loss of blowing agent and absorption of moisture.

MIX RATIO

1:1 by volume.
 Typical reaction rate and density (laboratory, cup mix) (both components at 20°C)

- cream time: 6 - 8 sec.
- tack free time: 15 - 25 sec.
- free rise density : 26 - 28kg/m³

Reactivity and density may vary depend on ambient temperature and grade.

SUPPLY

PU Foam SS40A	
Part A	220kg drum
Part B (MDI)	250kg drum

COVERAGE

Average consumption of 1.5kg/m² with 3cm thickness

Quality for Professionals

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	STANDARDS
Mix ratio, [volume:volume]	1:1	-
Final density, [kg/m]	38 to 42	ASTM D 1622
Application thickness, [cm]		
Min	3	
Max	10	-
Compressive strength, [kpa]		
With rise	220 to 320	
Against rise	172 to 207	ASTM D 1621
Thermal conductivity @ 25°C, W/(mk)		
Initial value	0.023	
Aged value	0.026	ASTM C 518/19
Closed cell content, apparent vol, %	92 to 93	ASTM D 2856
Water vapor transmission, perm-inch		
All cut surfaces	2	ASTM C 518/91
With skin retained	1	
Water absorption, per cm ² [gm/cc]		
Without protective coating	0.0087	ASTM C 272
With protective coating	0.0019	
Dimensional stability, % linear change		
7 days @ - 15°C	<1.0	ASTM D 2126
7 days @ 100°C	2	
7 days @ 70°C [100% RH]	2.5	
Fire resistance	Class B3	DIN 4102
U Value for 50mm thick foam- w/mk	0.46	-
U Value for 40mm thick foam- w/mk	0.57	-

All values given are subject to 5-10% tolerance

TDS_PU Foam SS40A_GCC_1017

2

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed. The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.



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Quality for Professionals

POLYCOAT RBE 15

SBS Modified Bitumen Emulsion

POLYCOAT RBE 15 is an emulsified bituminous coating modified with 10% Styrene Butadiene Styrene Rubber, which dries to form a tough and seamless, flexible water and vapor proof protective coating.

CHARACTERISTICS

- ▶ Cold applied.
- ▶ Single component, easy to apply.
- ▶ Can be applied on damp substrates.
- ▶ Asbestos free, odorless. Can be applied in closed or confined spaces.
- ▶ Water-based and therefore is non-toxic.
- ▶ Environmentally friendly.
- ▶ Good resistance against chloride and sulphate ions.
- ▶ Has good adhesion to most building substrates.
- ▶ Seamless/joint free.

FIELDS OF APPLICATION

Can be used for a wide variety of applications, which includes the following:

- ▶ Waterproofing & protective coating on concrete foundations.
- ▶ As damp proof membrane in sandwich construction.
- ▶ Waterproofing in wet areas such as toilets, kitchens etc.
- ▶ Curing compound on freshly cast concrete structures
- ▶ General vapor proof coating for both interior & exterior floors & walls.

APPLICATION INSTRUCTIONS

Application procedures may vary slightly depending upon site conditions. The general recommended guideline for the application of the bitumen coating system is as follows:

Surface preparation

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil, grease. Light mechanical grinding/grit blasting/high pressure water jet may be used to clean the surface of all the contaminants depending on the degree of contamination on the surface to be coated.

All surface imperfections and protrusions shall be removed and repaired. Structurally unsound and friable concrete must be removed and repaired with a suitable POLYCRETE® concrete repair mortar.

Priming

It is highly recommended to apply a priming coat prior to the application of the POLYCOAT RBE 15 coating on the substrate. The primer can be prepared in the site by diluting POLYCOAT RBE 15 with 20% water and applying this diluted coat as the primer. For very dry and porous substrates apply two coats of this primer. The primer can be applied to damp or freshly cast concrete surfaces also. However, it should not be applied on waterlogged or flowing water areas. Further coats shall be applied only after the primer coat dries off completely. In case of delay in application of the top coat for more than 24 hours, a fresh coat of primer shall be re-applied.

Foundation Waterproofing

Stir the contents of the drum thoroughly before application to remove all sediments. Depending on the dry film thickness required, apply the rubberized bitumen coating @1–2m²/lt./coat. On vertical areas, it is recommended to apply the coating in multiple layers in order to avoid sagging of the heavy bodied coating. Subsequent coats shall be applied only after the previous coat dries off completely and shall be applied at right angles to the previous coat. Clean dry sand may be broadcasted onto the wet coating to provide a key for the subsequent coats and achieve a greater dry film thickness. The coating should be applied and finished up to the DPC level. If a plaster or cement render is to be applied on the bitumen coated surface, clean dry sand shall be broadcasted on to the coating whilst it is still wet. Leave the coating for curing for a minimum period of 48 hours before applying any protection board or backfilling. Care shall be taken to ensure that the first coat is not punctured during the application of the second coat. However, if the coating is damaged, the area can be readily over coated provided the surface preparation is done properly.

Protection

POLYCOAT RBE 15 coating should be protected from getting damaged due to the ongoing site activities and during backfilling.

Coating can be protected either by a cement sand screed (50mm thick) or by an asphaltic protection board (BITUBOARD®). Alternatively, a 1000 gauge polythene sheet can also be used for protecting the coating in areas where the backfill material is not very coarse.

Note: Curing efficiency of Bitumen based emulsions will not be high as that of Resin based curing compounds

COVERAGE

The coverage varies depending on the type of use:
General Use : 1-2 m²/lt./coat

CLEANING

Clean all tools immediately after use with clean water. Hardened material can be cleaned with a suitable cleaner.

STORAGE & SHELF LIFE

The pails and drums must be stored in a covered area, away from direct sunlight, UV and other sources of heat.

The shelf life of the product is up to 12 months in un-opened condition and when stored as per recommendations. Failure to comply with the recommended storage conditions and excessive exposure to sunlight and UV will result in the deterioration of the quality of the product and reduce its shelf life.

HEALTH & SAFETY

As with all bitumen products caution should always be exercised. Protective clothing such as gloves and goggles should be worn. (See packing for specific instructions). Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting. Call for medical help immediately. Ensure that the container is available for medical attendant to examine any relevant instructions and content details.

SUPPLY

POLYCOAT RBE 15		20L pail & 200L drums	
BITUBOARD	3.2mm	2m x 1 m,	wt 7.7kg
	6.0mm	2m x 1 m,	wt 14.0kg
WATERTITE TS 15		10m x 50mm, wt 0.60kg	

*Refer to website for TDS
Approximate weight

TECHNICAL PROPERTIES

PROPERTIES	VALUES	TEST STANDARDS
Color	Dark Brown	-
Form	Thixotropic viscous liquid	-
Density @25°C, [g/cc]	1.00±0.05	ASTM D 1475
Solid content, [% by wt]	>65	ASTM D 2939
Rubber Content, [%]	> 10 on the dried film.	ASTM D 1644
Elongation, [%]	> 500	ASTM D 412
Drying Time @25°C, [mins]	60	-
Application Temperature [°C]	5 to 55	-
Service Temperature [°C]	-5 to 100	-
VOC [g/l]	<50	ASTM D3960/D2369

All values given are subject to 5-10% tolerance

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.



Manufactured in G.C.C.

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PRODUCT DATA SHEET - POLYESTER NON WOVEN GEOTEXTILE

Properties	Test Method	Unit	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	GEOTEC	
			PET-100	PET-120	PET-140	PET-150	PET-200	PET-250	PET-300	PET-350	PET-400	PET-450	PET-500	PET-600	PET-800	PET-1000		
Mechanical Properties	CBR Puncture Strength	ASTM D 4833 ASTM D 6241	N	950	1150	1300	1500	1800	2000	2400	3000	3500	4000	4500	5000	7500	9500	
	Dynamic Puncture	EN 918	mm	30	26	22	19	18	14	12	9	8	7	5	0	0	0	
	Mullen Burst	ASTM D 3786	PSI	120	140	170	270	280	340	420	520	620	680	740	880	1050	1200	
	Elongation	ASTM D 4595	%	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
	Flow Rate (5cm Head)	ASTM D 4491	l/m ² /s	100	95	90	80	75	75	75	70	65	60	55	50	45	30	25
	Permeability	ASTM D 4491	cm/s	0.35	0.32	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Opening Size (O95)	ASTM D 4751	micron	100	100	90	75	75	75	75	75	75	75	75	75	75	75	75
	Minimum Grab Elongation	ASTM D 6241	%	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	Grab Tensile Strength (CD)	ASTM D 4632	N	200	280	320	500	680	880	1150	1450	1650	1850	1950	2100	2750	3300	
	Grab Tensile Strength (MD)	ASTM D 4632	N	190	250	300	400	470	600	800	930	1000	1150	1200	1500	1800	2100	
Physical	Trapezoidal Tear Strength	ASTM D 4533	N	100	130	150	230	320	410	520	550	850	900	950	1100	1450	1650	
	Thickness	ASTM D 5199	mm	1.4	1.6	1.8	1.8	2.3	2.5	3.2	3.5	3.8	4.2	4.5	5.2	6.5	8.5	
Physical	Mass Per Unit Area	ASTM D 5261	g/m ²	100	120	140	150	200	250	300	350	400	450	500	600	800	1000	
	Roll Size (W x L)		m	2.0x100	2.0x100	5.6x200	5.6x200	5.6x150	5.6x150	5.8x100	5.8x100	5.8x100	5.8x100	5.8x50	5.8x50	5.8x50	6x50	

(Tolerance Allowed +/- 10% ; Thickness, Area Weight , Tensile Strength , Elongation @ max & Tear Strength)

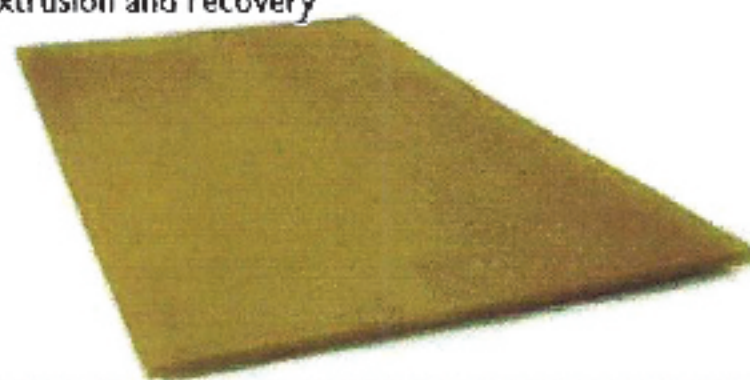
Values reported in this data sheet are indicative average results obtained in our laboratory.
The right is reserved to make changes at any time without notice .



STEICO bitumen

Material

- Wood fibre insulating board produced in accordance to EN 13986 and EN 622-4 with ongoing quality supervision
- 100% of the wood comes from sustainable cultivated forests and is certified independently according to the guidelines of the FSC
- Bitumen content from 5% up to 35% (European market leader in softboard production)
- Produced and supervised according to current European standards
- Complies with ASTM D 1751 for the requirements of compression, extrusion and recovery
- Recovery after 50% compression up to 80%
- Standard sizes and customized panels and strips
- Easy processing guaranteed with common tools
- Production certified according to ISO 9001:2000
- Made in Poland



STEICO bitumen

Characteristic values

Produced and supervised according to EN 13986	
Porous wood fibre insulating board according to EN 622-4	
Board designation	EN 622-4 SB.H - EI
Fire class according to EN 13501-1	E
Thickness [mm]	10 / 12 / 15 / 19 / 25
Bitumen content [%]	5 / 10 / 15 / 20
Nominal value of thermal conductivity λ_D [W/(m ² K)] DIN EN 13986, Tab. 11	0,05
density [kg/m ³]	230
Water vapour resistance factor μ	5
Specific heat capacity c [J/(kg ² K)]	2100
Sound absorption coefficient	(according to EN 13986, tab. 10)
Frequency range from 250Hz to 500Hz	0,10
Frequency range from 1000Hz to 2000Hz	0,30
Applied materials	wood fibre bitumen aluminum sulphate paraffin waterproofing agents
Surface	unsanded

STEICO bitumen



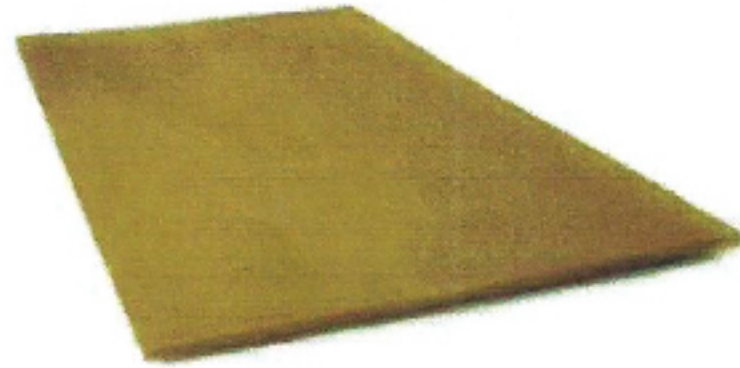
Application

- Multi-purpose bituminized softboard made of natural wood fibre for concrete constructions
- For expansion joint fillers according to our characteristic values
- For wet screed and dry screed application
- For weight distributing layer in combination with a leveling compound

STEICO bitumen

Specific Advantage

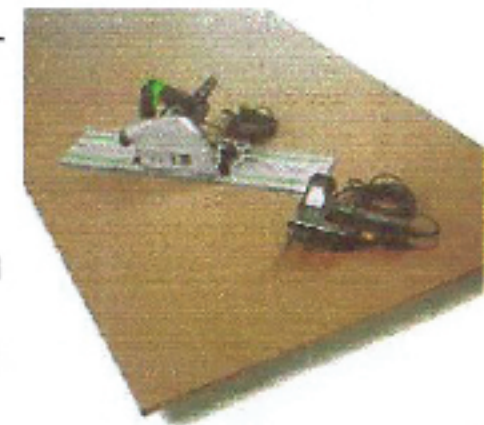
- Compression strength
- Excellent insulating qualities
- Water vapour open
- Available in different bitumen contents
- Cut to size dimensions possible
- All requested thicknesses possible
- Materials thicknesses from 10 to 25mm consists of a single homogeneous board



STEICO bitumen

Processing & Cutting

- You can easily format and cut out STEICO standard with an electric compass saw – especially implements with a wave shape saw blade.
- Recommendation: Bosch, type T313 AW / kwb, type T313 AW
- Cuts with long lengths and widths can easily be done with an electric portable powered circular sawing machine
- Depending on the thicknesses of the boards, we recommend the use of a stable knife and guide bar. You are going to achieve rough edges.
- To extract the dust emerging from the cutting process, the usual vacuum cleaners can be used.



STEICO bitumen

Storage & Transport

- Lying, level and dry
- Protect edges from damage
- Remove plastic foil packing only when pallet stands on solid, dry and even ground
- Carry single boards vertically
- One way pallets



STEICO bitumen

Packing Data

Thickness [mm]	Size [mm]	Weight [kg/m ²]	Pieces / pallet	Surface / pallet [m ²]	Weight / pallet [kg]
10	2200 x 1220	2,3	110	295,2	approx. 710
12	2200 x 1220	2,8	93	249,6	approx. 720
15	2200 x 1220	3,4	75	201,3	approx. 720
19	2200 x 1220	4,4	59	158,4	approx. 740
25	2200 x 1220	5,75	46	123,5	approx. 710

Supplied By :



ADVANCED CONCRETE TECHNOLOGY

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BACKER ROD

CLOSED-CELL POLYETHYLENE FOAM

PRODUCT DESCRIPTION

Basic Use: ITP Standard Backer Rod is an ideal non-absorbent compressible backup material. It is inserted into a joint to control sealant depth to create a backstop to:

- Allow proper sealant tooling
- Allow proper sealant wetting of the joint surfaces
- And yield a proper bond breaker between the Backer Rod and sealant

It can also be used as a temporary seal.

Compatibility: ITP Standard Backer Rod is compatible with butyl, polysulfide, acrylic polyurethane, silicone and most other cold applied sealant compositions.

Specific Uses: Commonly used in glazing installations, window and door applications, expansion joints, curtain wall joints, partitions, log construction, pavement joints, repairs, precast units and copings.

Composition and Materials: ITP Standard Backer Rod is an extruded round, closed cell, low density polyethylene foam material with a skin-like outer texture. It is highly flexible and compressible for easy installation. Available in stock grey and several other colors on a custom basis. Available in a wide variety of diameters. (See Table 1)

TABLE I

STOCK SIZES AVAILABLE

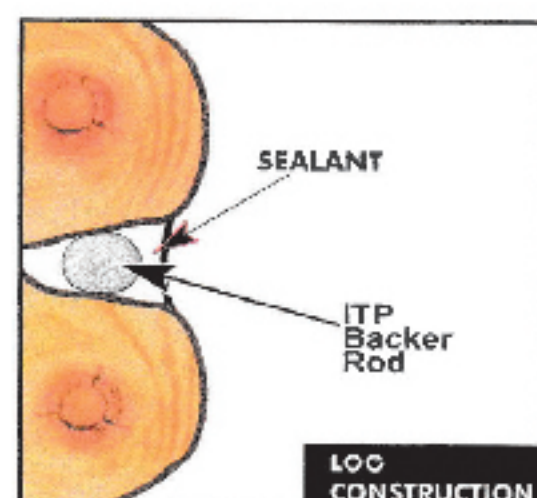
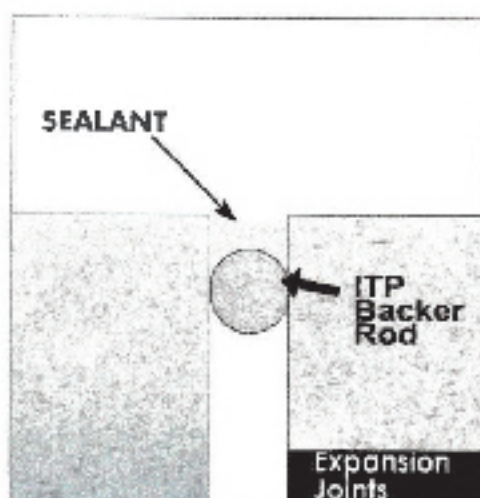
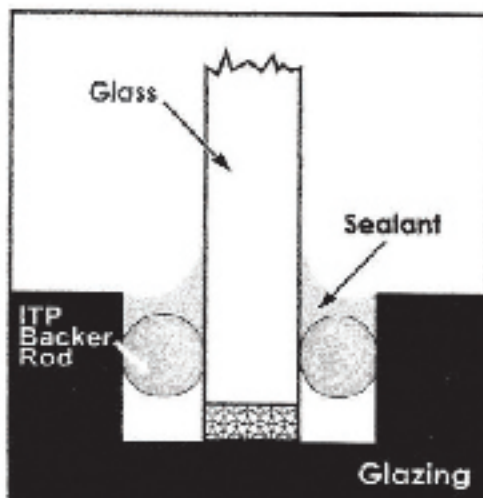
DIAMETER	SHIPPING FORMAT	FEET PER CARTON	METRIC DIAMETER	METERS PER CARTON
* 1/4"	2 Spools	4000	6mm	1219
* 3/8"	1 Spools	2100	9mm	640
1/2"	2 Spools	2500	12mm	762
5/8"	2 Spools	1550	15mm	472
3/4"	1 Spool	1100	19mm	335
7/8"	1 Spool	850	22mm	259
1"	1 Spool	600	25mm	182
1 1/4"	1 Spool	400	31mm	121
1 1/2"	6' Lengths	420	38mm	128
2"	6' Lengths	240	50mm	73
2 1/2"	6' Lengths	156	63mm	48
3"	6' Lengths	102	76mm	31
4"	6' Lengths	48	101mm	15
5"	6' Lengths	90	127mm	27
6"	6' Lengths	60	152mm	18

Sizes 2

- Rectangular cartons with convenient hand holes for carrying are ideal for warehousing and handling
- UPS and most other package express services will accept all cartons except 5" and 6" for reshipment
- Truckload quantities furnished on pallets and may be warehoused two pallets high to maximize space

*Minimum 2 carton purchase for Baby Backer Rod Carton (sizes 1/4" and 3/8")

Common Applications of ITP Standard Backer Rod



TECHNICAL DATA FORM 101

TECHNICAL DATA

ITP Standard Backer Rod is chemically inert and will resist oil, gasoline and most other solvents. This material will not stain nor adhere to sealant materials and is non-exuding. (Refer to Table II for typical physical properties)

INSTALLATION

Joint or opening must be clean, dry and free of obstructions. Using Table III select proper rod diameter and cut to length or use directly from spool. With a blunt instrument or roller, uniformly install rod at the level recommended by the sealant manufacturer, specifier or architect involved. Generally, the depth of the joint after the backer rod is installed is one half the width. Very large and very small joints vary in terms of this depth to width ratio. DO NOT PUNCTURE, STRETCH OR OVERLY COMPRESS.

PURCHASING AND PRICING

ITP Standard Backer Rod is widely available throughout the United States and Canada. Please contact Industrial Thermo Polymers Ltd. at info@tundrafoam.com or 1-800-387-3847 for the name and address of your local distributor source they will provide you with samples and pricing information as required.

TECHNICAL ASSISTANCE

Industrial Thermo Polymers Ltd. has qualified representatives available to assist users of the various Backer Rod materials referenced herein. Please contact your local ITP distributor should assistance be required.

PURCHASING ADVANTAGE

- North America's first full line / full service Backer Rod supply source
- One stop shopping for all your Backer Rod requirements

TABLE II

PHYSICAL PROPERTY ANALYSIS

PROPERTY	VALUE	TEST METHOD
Density (nominal)	2.0 lbs/cu. ft.	ASTM-D-1622
Tensile Strength	50 PSI	ASTM-D-1623
Compression Deflection	5 PSI @ 25%	ASTM-D-1621
Water Absorption	0.03 gm/cc	ASTM-C-1016
Water Absorption	0.02% by volume	ASTM-C-509
Temperature Range	-90°F to 210°F	

Water Absorption¹ "Determination of water absorption by sealant (joint filler) materials"

Water Absorption² "Standard specifications for cellular elastomeric preformed gasket and sealing material. Historic standard no longer applicable to Backer Rod."

TABLE III

ITP ROD SIZE TO JOINT WIDTH

Joint Width	Rod Diameter	Joint Width	Rod Diameter
1/8" - 3/16"	1/4"	1" - 1-1/4"	1-1/2"
3/16" - 1/4"	3/8"	1-1/4" - 1-1/2"	2"
1/4" - 3/8"	1/2"	1-1/2" - 2"	2-1/2"
3/8" - 1/2"	5/8"	2" - 2-1/2"	3"
1/2" - 5/8"	3/4"	2-1/2" - 3"	4"
5/8" - 3/4"	7/8"	3" - 4-3/4"	5"
3/4" - 7/8"	1"	4-3/4" - 5-3/4"	6"
7/8" - 1"	1-1/4"		

TABLE IV

CARTON SIZES AND WEIGHTS

Rod Diameter	Weight / Carton	Carton Measurement
1/4" - 3/8"	6 lbs.	18" x 18" x 15"
6mm to 9mm	2.7 kgs.	457mm x 457mm x 381mm
1/2" - 1 1/4"	11 lbs.	18" x 18" x 30"
12mm to 31mm	5 kgs.	457mm x 457mm x 762mm
1 1/2" to 4"	14 lbs.	17" x 10" x 74"
38mm to 101mm	6.4 kgs.	432mm x 254mm x 1880mm
5" to 6"	35 lbs.	17" x 23" x 74"
127mm to 152mm	15.9 kgs.	432mm x 584mm x 1880mm

GUARANTEE / WARRANTY

Industrial Thermo Polymers Limited believes the information and recommendations herein to be accurate and reliable and the products are reasonably fit for the applications mentioned. However, as uses, conditions and application methods are not within our control, ITP does not guarantee nor warrant these products nor results from the use of these products or information given. It is therefore the responsibility of the buyer to determine the suitability of these products in applications intended and determine the appropriateness of the products. Sizes and Lengths per spool are those at times of packaging and may vary with climatic conditions after manufacture.

POLYTEX LLC.

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TECHNICAL DATA	TEST METHOD	TYPICAL VALUE
Skin Over Time		>50 mins.
Tack Free Time	ASTM C-679-87	3 hours.
Shrinkage,%		<5
VOC, (g/L)	USEPA - 24	<45
Flow (sag or slump)	ASTM C-639-01	Non Sag
Hardness : Shore A	ASTM D-2240-97	30±3
Movement Capability, %	ASTM C-719	±30
Peel Strength (N), concrete	ASTM C-794-93	>30
Tensile Strength (N/mm ²)	ASTM D-412-98a	1.3
Elongation at break	ASTM D-412-98a	>300%
Effects of Accelerated Aging @ 300 hrs. UV exposure	ASTM C-793	No deterioration
Application Temperature (°C)		+5 to +40

PACKAGING

600ml sausage, 20 sausages per carton

COLORS

White, Off-white, Grey, and Black. For other colour please contact local Triton representative

EXPANSION JOINT DESIGN

Tritosil H10 PU may be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be at least 4 times anticipated movement, and not less than (5mm).

While applied on an expansion joint the depth (D) of the sealant should be equal to the width (W) of the joints that are less than 10mm wide. For wider joints, width to depth ratio should be 2 : 1.

The maximum width of the joint on which Tritosil H10 PU can be applied is 25mm.

Meter per 600 ml

Joint Depth(mm)	Joint Width(mm)					
	6	10	12	15	20	25
6	16.6					
8		7.5	6.2	5		
10		6	5	4	3	
2					2.5	1.9
15						1.6

JOINT BACKING

Closed cell polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint is insufficient for the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application

YIELD

The following formula is an approximate guideline to calculate foreseen yield for a standard 600ml sausage of Tritosil PU.

$$L = 600 / (W \times D)$$

Where: L = Length of sealant in metres obtained per cartridge.

D = Depth of the joint in mm

W = Width of the joint in mm

APPLICATION DETAILS

SUBSTRATE PREPARATION

Surfaces must be sound, clean, and dry. All release agents, dust, loose mortar, laitance, paints, or other loose particles must be removed. This can be accomplished with a thorough wire brushing, sanding, or solvent washing, depending on the contamination. Triton recommends that surface temperatures be below 40°C at the time the sealant is applied.

PRIMING

Tritosil H10 PU typically adheres to common construction substrates without primers; however, due to the variability of substrate finishes available, where deemed necessary, use Tritosil Prime P. A mockup or field adhesion test can be performed on the actual materials being used on the job to verify the need for a primer.

APPLICATION

Tritosil H10 PU is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly. Mask the sides of the joint with tape prior to filling for a cleaner finish. Fill the joint completely with a proper width-to-depth ratio and tool to ensure intimate contact of sealant with joint walls. Dry tooling is always preferred, although xylene can be used in limited amounts to slick the spatula if needed following the initial dry tooling.

CLEAN UP

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits.

LIMITATIONS

- Do not apply over damp or contaminated surfaces.
- Do not use Tritosil H10 PU as a structural (load transferring) sealant

STORAGE AND SHELF LIFE

Tritosil H10 PU has a shelf life of 6 months when stored in tightly closed original casks, in a dry place at a temperature between +5°C and +25°C

Manufactured By:



CURING TIME

Tritosil H10 PU generally cures at a rate of 2mm per day at 25°C and 50% relative humidity. Tritosil H10 PU will skin in 45-55 minutes and be tack-free in 3 hours. Lower temperatures and humidity will extend curing time.

FOR OPTIMUM PERFORMANCE

- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- Tritosil H10 PU can adhere to other residual sealants in restoration applications. For best results always clean the joint as advised in the Surface Preparation section of this data guide. A product field adhesion test for Tritosil PU within the specific application is always recommended to confirm adhesion and suitability of the application.
- When using Tritosil H10 PU in a traffic-bearing horizontal joint, use a firmer joint backing, such as neoprene rod or polyethylene foam block, and recess the surface of sealant (3mm - 6mm).
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant however, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Proper application is the responsibility of the user. Field visits by Triton personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH AND SAFETY

Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area. Always utilize the accompanying MSDS for information on Personal Protective Equipment (PPE) and health Hazards.

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RoK Polyurethane Top Coat (formerly DrFixit Polyurethane Top Coat)



TWO COMPONENT, UV COLOR STABLE POLYURETHANE COATING

Description

RoK Polyurethane Top Coat is a two component, UV stable, solvent based polyurethane seal coat. It is available either pigmented or clear.

Typical Applications

- Top coat for Dr. Fixit and ROK flooring systems
- Interior and exterior coating applications
- Final waterproofing, weather resistant coating on roofing systems

Features

- UV stable.
- Suitable for exterior applications
- Excellent abrasion resistance
- Gloss finish improves aesthetic appearance and reduces dirt retention
- Excellent adhesion to a variety of substrates
- Available in a range of standard colours

Packaging

4 and 20 litres

Method of Application

1 SURFACE PREPARATION

- Concrete and screed should be at least 28 days old with a maximum relative humidity at the surface of 75% when measured with a hygrometer to BS 8201-81. Surfaces must be free of all contaminants and surface laitance.
- All dirt, oil, grease and fats should be removed using proprietary degreaser or detergent as appropriate and the surface allowed to dry prior to further treatment. All construction contaminants such as plaster, fillers and paint must also be removed.
- The surface must be free of laitance and defective concrete or screed. Laitance can be removed mechanically by either vacuum assisted planning, scabbling, shot blasting or diamond grinding equipment. Any weak or friable material exposed during the preparation process should be removed and repaired using a suitable Dr. Fixit repair mortar. The appropriate preparation technique should be chosen considering the site conditions and the profile created considering the material to be applied.
- Immediately prior to the material application, all dust must be removed from the prepared surface using industrial vacuuming equipment.
- Should a primer be needed for a pigmented top coat use RoKprime EPSF primer.

2 MIXING

- Thoroughly mix Part A and Part B in their individual containers to redistribute any settlement and then transfer and mix together in a separate clean mixing container. Mix the material using a slow speed electric mixer for two minutes.

3 APPLICATION

- Apply the mixed material by brush or roller at the recommended coverage rate.

4 CLEANING

- Clean tools and equipment immediately after use with RoK Thinners No.1.

Note:

- Application temperature of the substrate should be in the range of + 10 to 40°C.
- Do not dilute with thinners or solvent.
- Apply the material in properly ventilated areas.
- When applying externally it is recommended to avoid direct sunlight and avoid application during the hottest times of the day.

TECHNICAL DATA	
VOC Content	<450 g/ltr (Maximum allowable 500g/ltr)
Mix Density @ 25°C	1.05 ± 0.02 g/cm ³
Solid %	55 ± 2
Pot life, minutes @ 25°C	45
Surface Dry Time, Hours	1 – 2
Tack Free Time, Hours	3 – 4
Hard Dry Time, Hours	Overnight
Complete curing time, Days	7
Gloss	40 (60°C Gardner) Semi – Gloss (ASTM D 523)
Adhesion	On primed surface 2.5 Mpa (ASTM D 4541)
Shore D Hardness	75 ± 5 (ASTM D 2240)
Abrasion resistance after 1000 cycles	45 mgs weight loss after 1000 cycles using CS-17 resistance (ASTM 4060)
after 1000 cycles	CS-17 resistance
Chemicals resistance	Good overall chemicals resistance (ASTM D 543)
UV resistance	1000 hours no loss of gloss, no colour change (ASTM G 53)
Solar reflectance index	95% (White) (ASTM C 1549) 40.5% (Pale Grey) (ASTM C 1549)

RoK Polyurethane Top Coat (formerly DrFixit Polyurethane Top Coat)



TWO COMPONENT, UV COLOR STABLE POLYURETHANE COATING

Theoretical Coverage

0.16 - 0.2 ltr/sq.mt per coat. (90-110 microns DFT per coat)

Storage

When stored in dry conditions out of sunlight in original unopened packaging this product has a shelf life of 12 months. Storage above 35°C will reduce shelf life and product performance.

Health and safety Precautions

As with all polyurethane resins, work cleanly at all times. Skin and eye contact should be prevented by the use of plastic or rubber gloves, eye protection, barrier creams and protective clothing. Any resin or hardener in contact with the skin should be removed with warm soapy water or a resin removing cream. NOT solvent. In case of eye contact wash copiously with water and in the case of accidental ingestion, obtain immediate medical attention. Provide good work area ventilation. See MSDS for Further information.

Pidilite MEA Chemicals L.L.C offers a wide range of structural protection and waterproofing systems:



PERFORMANCE FLOORING

RoK Polyurethane Top Coat



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Web: www.pidilitemea.com

Disclaimer: The product information & application details given by the company & its agents have been provided in good faith & meant to serve only as general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problem, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee/warranty as to the other results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products



SPECIFICATION



Specification

Proposed waterproofing system shall include following materials and works to be supplied and installed by **Prompt Insulations L.L.C** with a Life Time Guarantee of 25 Years.

1. Roof slab shall be inspected by our roofing specialist and confirm acceptance of the roof for application of waterproofing system.
2. Cleaning the roof surface using soft brush or air blower.
3. Covering the Parapet wall (75cm Height) and other utilities fixed on the roof to avoid the risk of over spray.
4. Supply & Spray apply **Polyurethane foam** at an average thickness of 30-35mm / 40-45mm or any other specified thickness according to the customers' demand with density 40-45Kg/M³ from BASF/ Baymer-Pearl / Henkel Polybit or equivalent over the entire roof area including the up stand to a height of max. 200mm.
5. Supply & brush apply **Rubberized Bitumen Emulsion** liquid coating from Henkel Polybit or equivalent over the entire foam area and allow drying for Minimum 24 hours.
6. Flood Test the roof for a minimum period of 48 hours.
7. Supply & lay of 120gsm loose **Geotextile** separation layer.
8. Supply & fix **Flex board** or equivalent expansion joint filler boards in slope [1:150] and in panels (3X3Mtr).
9. Supply & lay **Polypropylene fiber reinforced Protective screed (300 OPC)** in panels and cure as per standard procedures.
10. Prepare angle fillet all around parapet skirting area (For foundation - Angle fillet to be provided only for the pre-built foundations) and up stands using sand and cement mix.
11. Providing a complete protection for the entire angle fillet areas by using a fabric reinforcement material.
12. Supply & apply **1-Part Polyurethane based Sealant** to all construction joints including backing rod.
13. Supply & brush apply **Rock Polyurethane Top Coat** (formerly Dr Fixit Polyurethane Top Coat - Grey) over the entire roof area including up stands and allow drying for 48 hours.
14. Final inspection shall be carried out by **Prompt Insulations L.L.C** and issue a life time guarantee of **25 YEARS**.



PROCEDURE & SCOPE OF WORK



Procedure and Scope of Work

1. Prior to commencement of roof waterproofing works, A preliminary site inspection shall be carried out by us and any further preparation works if required shall be brought to the attention of the main contractor.

Main contractor shall make sure the following conditions are met:

- Vertical parapet wall shall not be plastered to the required height [200mm].
 - All Ducts or Opening should be raised 400mm.
 - Roof door threshold shall be in place.
 - All Steel rods and nails should be cut and removed.
 - Roof surface to be cleaned properly.
 - All Unwanted Sleeves, Openings and holes to be closed properly.
 - Rain water outlets shall be in place at specified height (25mm) as per slope.
 - All Electrical conduits to be laid and fasten with the roof slab.
 - AC or water pipe sleeves shall be in place at a minimum height of 400mm
 - All other works on the roof shall be completed prior to commencement of waterproofing works.
2. On acceptance of the roof from the main contractor, preparatory works shall be undertaken like roof cleaning, covering of parapet wall and other utilities fixed on the roof to avoid the risk of over spray.
 3. Upon completion of preparatory works, application shall commence where a combination of **Polyol & Isocyanate** is sprayed on to the roof slab. The spray applied system forms an impermeable waterproofing cum insulation layer with high thermal resistance.
 4. On completion of polyurethane foam application, **Rubberized Bitumen Emulsion** liquid coating shall be applied over entire foam of maximum thickness 500-600Microns (Single Coat - WFT).
 5. Once coating is completely dried (minimum 24 hours), our representative shall visit the site to inspect the works completed and give clearance for flood test (minimum 48 hours).
 6. Upon successful completion of flood test, water shall be removed and **Geo-textile** (120gsm) shall be laid as a separation layer over the entire roof area prior to commencement of screeding works.
 7. Upon completion of separation layer application, start the level marking and paneling works using **Flex board** (expansion joint filler board) with sand and cement mix.

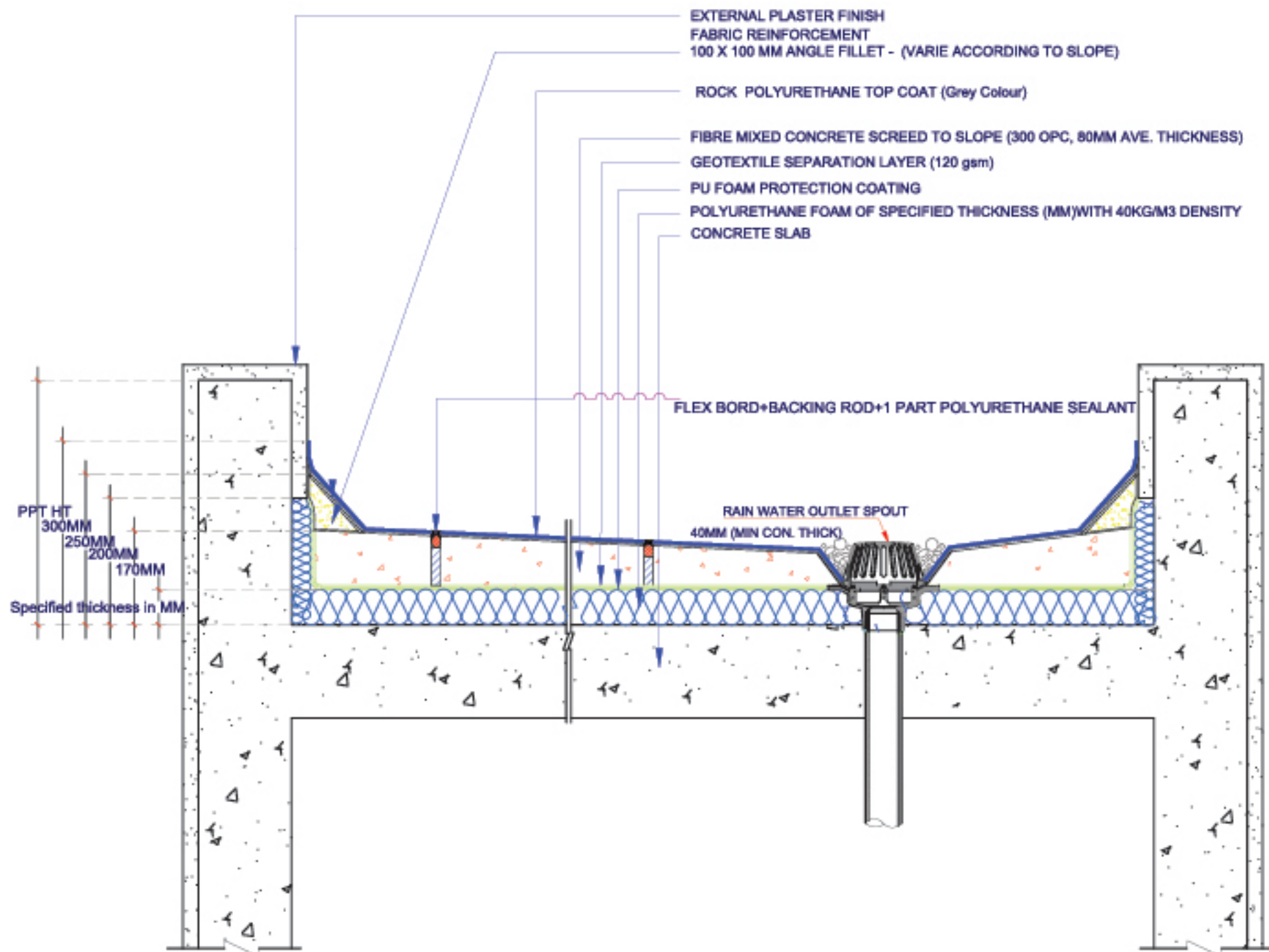


8. **Polypropylene fiber reinforced Protective screed (300 OPC)** shall be laid in panels and allow to cure as per standard procedures.
9. Prepare angle fillet all around parapet skirting area (For foundation - Angle fillet to be provided only for the pre-built foundations) and up stands using sand and cement mix (size 100mmx100mm varying according to slope).
10. Providing a complete protection for the entire angle fillet areas by using a **fabric reinforcement material**.
11. Once screed is completely cured, all construction joints shall be opened and treated using with **1-Part Polyurethane Sealant** and **backing rod** for accommodating movement of the concrete during expansion and contraction.
12. Once the sealant applied is completely cured, **Rock Polyurethane Top Coat** (Formerly Dr Fixit Polyurethane Top Coat - Grey) Coating shall be applied over the entire screed including up stands to form a uniform coating.
13. Once the top coat is completely cured for 48 hours, Our Representative shall visit the site for final inspection and a **Life time Guarantee of 25 YEARS** shall be issued.



SECTION DRAWING

TYPICAL SECTION OF COMBO ROOF SYSTEM



METHODOLOGY FOR COMBO ROOF SYSTEM.

- STEP-01 : COVERING THE PARAPET WALL (75CM HT) AND OTHER UTILITIES FIXED ON THE ROOF TO AVOID THE RISK OF OVER SPRAY.
- STEP-02 : SPRAY APPLY POLYURETHANE FOAM OF SPECIFIED THICKNESS WITH DENSITY 40 KG/M3.
- STEP-03 : BRUSH APPLY PU FOAM PROTECTIVE COATING ABOVE ENTIRE P.U FOAM SPRAYED AREA.
- STEP-04 : LOOSELY LAY GEOTEXTILE SEPERATION AND PROTECTIVE LAYER 120GSM WITH AN OVERLAP OF 30 CM.
- STEP-05 : FIX RIDGES IN PANELS AND SLOPE (1:150-MAX) USING BITUMEN IMPREGNATED BOARDS AND CEMENT SAND MIX.
- STEP-06 : LAY FIBRE MIXED SCREED CONCRETE (300OPC) TO SLOPE (1:150).
- STEP-07 : FIX BACKING ROD & 1 PART POLYURETHANE SEALANT TO ALL CONSTRUCTION JOINTS IN SCREED.
- STEP-08 : FIX ANGLE FILLETS ALONG THE PARAPET, MECHANICAL DUCT OPENINGS AND PRE-UTILITY UPSTANDS.
- STEP-09 : PROVIDING FABRIC REINFORCEMENT PROTECTION OVER ENTIRE ANGLE FILLET AREAS.
- STEP-10 : BRUSH APPLY ROCK POLYURETHANE TOP COAT (GREY) ABOVE SCREED & ANGLE FILLET (+50MM VERTICALLY).



GUARANTEE CERTIFICATE SPECIMEN



Guarantee Certificate Specimen

Certificate of Waterproofing

Prompt Insulations L.L.C hereby certify that Combo Roof waterproofing system installed by us in below given project has a guarantee of 25 years from the date of installation against leakage. This guarantee shall be limited to the free supply & apply of waterproofing materials only to the defective area where failure has been caused by faulty material or workmanship and shall not cover other damages or defects howsoever cause.

- Date of Installation :
- Date of Expiry :
- Project :
- Roof Waterproof Area :
- Client :
- Consultant :
- Main Contractor :
- Our Job Reference :

Signed & Stamped:



TRADE LICENSE



رخصة مهنية / Professional License

رخصة عادية - Regular License

رقم الرخصة License No. **78656**



رقم العرفة ACC No. 93439

رقم السجل التجاري Register No. 82147

License Details	تجديد رخصة / Renew License	تفاصيل الرخصة
Trade Name PROMPT INSULATIONS L.L.C		الاسم التجاري برومبت للمواد العزلة ذ م م
Legal Form Limited Liability Company		الشكل القانوني شركة ذات مسئولية محدودة
Expire Date 2021-08-29 تاريخ الانتهاء	Issue Date 2016-09-01 تاريخ الاصدار	

Passport / رقم الجواز	Nationality / الجنسية	Manager Name / اسم المدير
8470375		رفد ابراهيم لوزير اميل

Activities	الأنشطة
Concrete Works	أعمال الخرسانة
Waterproofing and water-proofing works Insulation Contracting	تركيب المواد العازلة في الإنشاءات والمنشآت

P.O. Box	صندوق البريد	Contract Expiry Date	تاريخ انتهاء عقد الايجار	Lessor / اسم المؤجر	العنوان / Address
1552		2021-07-19		غلام علي حمود الظاهري وفوج علي بن حمود	مكتب رقم 107، ليوار 2 OFFICE No. 107, Liwaa2

ملاحظات

Emp No. رقم الموظف	Voucher Date تاريخ الايصال	Voucher No 30163068
	2020-09-08	

Print Date 2020 09 08 تاريخ الطباعة



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CONSULTANT APPROVAL REQUEST FORM

CONSULTANT APPROVAL REQUEST FORM

Date:

PROJECT IN DETAIL

Project

Location

Client

Main Contractor

Consultant

ITEM, SPECIFICATION & SUBMISSION

Specified Item Description

Combo Roof Waterproofing System

Sample as per Specification

Sample as Submitted

Supply & Apply by

Prompt Insulations L.L.C

SUBMITTED BY

Name

Date

Stamp & Signature

Consultant Comments:

REQUEST STATUS

APPROVED

Date:
Stamp & Signature

APPROVED AS NOTED

Date:
Stamp & Signature

REJECTED

Date:
Stamp & Signature

PROMPT

INSULATIONS LLC

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Bin Hamoodha Tower, 1st Floor, Office -107, Al Bustan 2 - Ajman, UAE

✉: info@promptinsulation.ae



The perfect waterproofing solution