

TECNOLOGIA EN **TECNOPOL**® **SISTEMAS**
POLIURETANO

PRODUCT GUIDE

THERMAL INSULATION WATERPROOFING



Poliurethane Systems
Elastomeric Polyurea
Waterproofing membranes
Waterproofing systems
Machinery
Technical service

www.tecnopol.es

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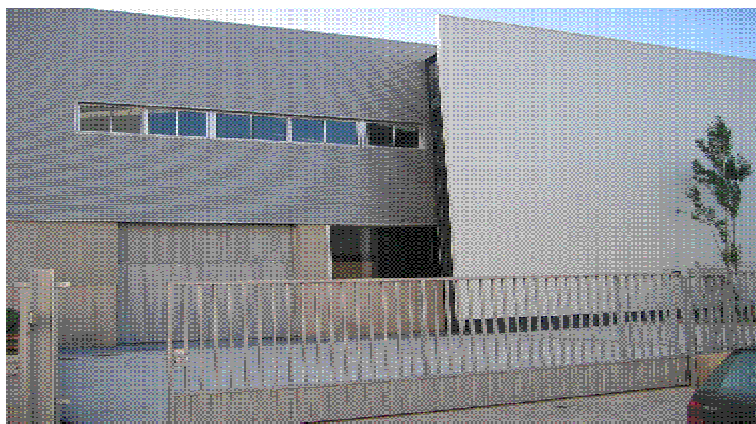
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TECNOPOL was set-up as a business specializing in the machinery sector for the polyurethane foam projection and injection, counting on more than 25 years experience of professional contribution on these equipment.

Currently, **TECNOPOL** is the European sales leader in this product division we are official distributor of the best polyurethane equipment makers. With a guarantee and commitment toward our clients that within a maximum 24 hour time limit any spares for the equipment, guns, pumps or hoses will be received.



On the other hand and in continued eagerness to expand our product range, inside the **TECNOPOL** group. We have expanded our offer of products incorporating Graco machinery for the application of all types of paints.

TECNOPOL SYSTEMS, S.L. is set-up as a marketing company, specializing advice and sale of polyurethane foam projection systems and is able to give clients an integral service within the polyurethane sector. In 2006 we expanded our range of products with the incorporation of polyurethane membranes, polyureas, and waterproof acrylic.





Thermal Insulation

POLYURETHANE FOAM G-2049
Projections on intervals concrete slab.

This polyurethane system G-2049 has been especially formulated for general projection works, where low density, a good insulation and fire reaction properties Euroclass-E are required.



COMPONENT PROPERTIES	COMP.POLYOL	COMP. ISOCYANATE
Gravity specifies g/cm ³ (20°C)	1.22	1.23
Viscosity mPa•s (cp) 25°C	385	225
Storage (Closed)	4 month	6 month
Mixing ratio by weight	100	101
Mixing ratio by volume	100	100

CHARACTERISTICS OF THE FOAM (MANUAL MIX)	
Cream time :	3 sec.
Tackfree time:	Sec. 11
Rise time:	Sec. 11

PROPERTIES (MACHINE MIX - 3 layers total 61 mm.)		TEST METHOD
Density: (Kg/m ³)	37	
Compressive strength:	0.29 kp.	UNE92120-1
Parallel to rise () MPa:	0.22	ISO 844
E-modulus:		
Parallel to rise () MPa:	8.1	ISO 844
Thermal Conductivity coefficient		
(Aged 24 h/temp.media.= 10°C/) W/m•K	0.020	ISO 8301
(Aged 24 h/temp.media.= 24°C/) W/m•K	0.022	UNE-EN
Closed cells:	% 96	ISO4590
Fire Classifications:	Euroclass E	UNE-EN 13501-1



Thermal Insulation

POLYURETHANE FOAM F-2091.1
Projection on roofs with small incline.

This polyurethane system **F-2091.1** has been especially formulated for general spraying work. The foam has a good fluency and adhesion. The system is burnt with HFC - 365mfc, and because of this there is a zero PAO.



COMPONENT PROPERTIES		COMP.POLYOL	COMP. ISOCYANATE
Specific weight g/cm ³ (20 ° C):		1.22	1.23
Viscosity mPa•s (cp) 25°C)		410	225
Storage (Closed)		6 months	6 months
Mixing Ratio by weight		100	101
Mixing Ratio by volume		100	100
CHARACTERISTICS OF THE FOAM (MANUAL MIX)			
Cream time:		Sec. 2	
Tackfree time:		Sec. 10	
Rise time:		Sec. 10	
		TEST METHOD	
Density:	kg/m ³	45	BS 4370 part 1 met . 2
PROPERTIES (MACHINE MIX)			TEST METHOD
Density: (Kg/m ³)		52	BS 4370 part 1 met . 2
Compression strength:		0.29 kp.	ISO 844
Parallel to rise () MPa:		0.22	ISO 844
E-modulus:			
Parallel to rise () MPa:		9.3	ISO 844
Thermal conductivity coefficient			
(Aged 24 h/temp.media.= 10°C/) W/m•K		0.021	ISO 8301
(Aged 24 h/temp.media.= 24°C/) W/m•K		0.022	UNE-EN
Closed cells:		% 97	ISO4590
Fire Classifications:		Euroclass E	DIN 4102



Thermal Insulation

POLYURETHANE FOAM C-2082.0

For injection in chambers

The ultra light semi-stiff polyurethane foam C-2082.0 is especially formulated for the insulation of chambers and other parts of the construction. By their nature the foam needs to be injected.



COMPONENT PROPERTIES	COMPONENT R (POLYOL)	COMPONENT I (ISOCYANATE)
Mixing ration – by volume:	1.17	1.23
Viscosity mPa•s (cp) (25°C):	150	225
Storage (Without opening)	max. 6 months	max. 6 months
Mixing ratio – by weight:	100	105
Gravedad especifica g/cm3 (20°C):	100	100

FOAM CHARACTERISTICS TO 20° (HAND MIXED)			
Cream time :	10 sec.	Gel Time:	40 sec.
Tackfree time:	55 sec.	Rise time:	60 sec.

PROPERTIES (MACHINE MIX)	TEST METHOD		
Density free rise:	kg/m3	8	BS4370 part 1meth. 2
Compression Resistance (10% def.):			
Parallel to rise ()	MPa	0.009	ISO 844
Perpendicular to rise ()	MPa	0.006	ISO 844
E-modulus:			
Parallel to rise ()	MPa	0.31	ISO 844
Perpendicular to rise ()	MPa	0.16	ISO 844
Dimensional stability:			
(+100°C/48h)			
Thermal conductivity coefficient :	%	< 1	ISO 2796
(After 24h/ temp. = 10°C/ ^)	W/m•K	0.041	ISO 8301
(After 24h/ temp. = 24°C/ ^)	W/m•K	0.043	ISO 8301
(After 3 weeks / temp. = 10°C/ ^)	W/m•K	0.040	ISO 8301
(After 3 weeks /temp. = 24°C/ ^)	W/m•K	0.044	ISO 8301
Closed cells:	%	< 2	ASTM D2856 meth. C
Fire properties		Self-extinguishable	ISO 3582



Thermal Insulation

POLYURETHANE FOAM **HANDI FOAM** Polyurethane Autonomous equipment.

HANDI FOAM is a two component portable equipment for polyurethane foam projection. This allows the professionals to produce polyurethane foam of an extraordinary quality in a simple and fast way, where and when needed. **HANDI FOAM** is designed to apply foam sealant in sprayed manner on situ, forming an insulating barrier to control air infiltrations and insulation of cracks, voids and joints in the building walls.

IDEAL FOR WATERPROOFING:

- Conduit seal, elbows, valves, T joints
- Junction boxes and to polish or repair the insulation of containers and cold rooms.
- Acts as an insulation and noise barrier
- Increases the structural resistance
- Provides a airtight seal and fills in all the gaps.



HANDI FOAM is used to seal the perimeter of doors and windows, intersections between walls, ceilings and tube canal through walls, floors, ceilings, attics and roofs. Adhesive to the majority of surfaces wood, metal, masonry, glass and the majority of plastics.

The kit **HANDI FOAM** is composed of 2 pressure deposits joined by means of pipes to a gun applicator, upon applying the content of the 2 deposits a chemical reaction is produced and a foamy substance is generated, which quickly expands until reaching between 3 and 5 times the volume of the product applied. The foam solidifies in some 60 seconds and takes approximately 5 minutes to cure completely and acquire a permanent solid form. The dry foam resists humidity, and acts as an insulator, noise barrier, increases the structural resistance and provides an airtight seal.



REFERENCE	DESCRIPTION	DENSITY	VOLUME EXPAN.	CONTENT
39914UD	HANDI FOAM 12	28 Kg/sqm.	30 L	2 x 0,5 Kg.
39915UD	HANDI FOAM 205	28 Kg/sqm.	430 L	2 x 6 Kg.
39916UD	HANDI FOAM 605	28 Kg/sqm.	1.430 L	2 x 20 Kg.



REFERENCE	DESCRIPTION	CONTENT
31913SZ	Hose 3 Mts.	Hose + gun + nozzle
31912SZ	Hose 5 Mts.	Hose + gun + nozzle

Thermal Insulation

POLYURETHANE FOAM **HANDI FOAM**

Polyurethane Autonomous equipment.

GUN APPLICATOR

A patented plastic gun, light and resistant, and fitted with a very comfortable handle, the outlet of the product is controlled through a touch sensitive trigger. The exact measurement of the product quantity reduces the risk of projecting an excessive quantity and wasting it. The gun counts on a security mechanism that stops accidental product discharge. The incorporated ejector helps for a very simple nozzle replacement.



NOZZLES PROVEN REACTION

The nozzles proven reaction test stops the possibility of producing a chemical reaction with the elements, thanks to the presence of an exclusive patented internal retention valve. The shape of the applicator tip allows the operator to verify if the nozzle has been previously used and its new conical design improves the mixture of foam. The incorporated lateral ailerons of the nozzle allows for simple and fast connection.



	HANDI FOAM 12	HANDI FOAM 205	HANDI FOAM 605
Volume expansion	30 Liters	430 Liters	1,430 Liters
Denisty (ASTM D-1622)	28 Kg/m ³	28 Kg/m ³	28 Kg/m ³
Expansion time	30 – 60 Seconds.	30 – 60 Seconds.	30 – 60 Seconds.
Thermal conductivity Coef.	0,023 W/mK	0,023 W/mK	0,023 W/mK
Value- R	1.09/inch (2.54 cm)	1.09/inch (2.54 cm)	1.09/inch (2.54 cm)
Prop. De la barrera de aire (ASTME E-283) @ 300 Pa @ 75 Pa (Extrapolado)	0.05 L/s/m ² 0.0125 L/s/m ²	0.05 L/s/m ² 0.0125 L/s/m ²	0.05 L/s/m ² 0.0125 L/s/m ²
Permanent evaluation (ASTM E-96) 1" (2.54 cm) 2.5 " (6.35 cm)	1.99 1.18	1.99 1.18	1.99 1.18
Traction resistance (ASTM D-1623)	317 kPA (46 psi)	317 kPA (46 psi)	317 kPA (46 psi)
Compression resistance (ASTM D-1621) Parallel @ 10 % Perpendicular @10%	158 kPA (23 psi) 110 kPA (16 psi)	186 kPA (23 psi) 124 kPA (16 psi)	186 kPA (27 psi) 124 kPA (18 psi)
Dimensional stability (ASTM D-2126) Heat exposition : 70°C Humidity: 70°C, 100% HR Exposition to the cold: -20°C	-0.6 % +2.9 % -0.3 %	-0.6 % +2.9 % -0.3 %	-0.6 % +2.9 % -0.3 %



Waterproofing

ELASTOMER POLYUREA P-2049

Seamless membrane for waterproofing.

The **Polyurea P-2049** is a liquid projected membrane, 100% solid and not harmful to the environment, that waterproofs and protects the surfaces from wear and corrosion. Due to its high adhesion to multiple substrates it gives for a permanent and sure joining with the surface, it is maintenance free of oxidation or corrosion with a nonslip finish in various colors.

Due to its mechanical properties and its chemical qualities it is an extremely durable coat. This highly resistant coating that tolerates all damages that could be caused by various acids and alkaline chemicals, as well as been a petroleum based products with excellent performance and stable bacteriological, it is easy to clean and capable of sealing joints and corners.

The **Polyurea P-2049** is applied by a highly technology machine that allows the product to be applied with a transportable equipment, using specialized personnel, with an application of up to 1,00 sqm. daily to two millimeters in thickness or more, with a curing time of three to ten seconds. It is trafficable within minutes, with an elastic modulus of up to 500% allowing itself to duplicate to extreme expansions and ground contractions.

IDEAL FOR WATERPROOFING:

- Roofs
- Balcony y porch
- Damp areas, floor tiles, etc
- Swimming pools, Treatment plants etc
- Parterres
- Water Tanks
- Fountains
- Bridges, tunnels, etc.



INDUSTRIAL APPLICATION:

- Industrial slaughterhouses, restaurants, electronic, hospitals, etc.
- Factory floors.
- In naval areas.
- Farming and an infinity of applications that require a waterproof material of high mechanical qualities.

The coating applications based on the **POLYUREA P-2049** technology vary with regard to the paints, where their aesthetic aspects with the combination of their adhesion properties and duration are vital. Used in protection for bridges and vehicles parking zones, including a protective finish for metal tubing surfaces and concrete, truck platforms, etc.



Waterproofing

ELASTOMER POLYUREA P-2049

Seamless membrane for waterproofing.

PROPERTIES

- It is able to duplicate irregularities of all types while maintaining its qualities.
- High adhesion in all kinds of substrates, being able to apply on water or ice.
- Seamless membrane and of maximum flexibility – elongation until 500%.
- It can be colored according to the client specification.
- 100% solidity.
- Working temperature ranges from -40°C until 180°C.
- It can be sprayed to any thickness and in a single layer.
- Health approved for contact with drinking water.
- High density and watertightness.
- Free of solvent.
- Resistant against acid or alkaline media.
- Applicable on any type of substrate.
- Resistant against the tear.
- Cures within 4 seconds and time of use within 24 hours.
- Good chemical resistance.
- Good insulation against the humidity.
- Good stability during the storage, stable in cold temperatures.



Waterproofing

ELASTOMER POLYUREA P-2049
Seamless membrane for waterproofing.

TECHINCAL DATA

COMPONENT PROPERTIES	COMPONENT R (POLYOL)	COMPONENT I (ISOCYANATE)
Mixing ratio – by volume:	100	100
Viscosity mPa•s (cp) (25°C):		
Storage (Without opening)	max. 6 months	max. 6 months
Mixing ratio – Por peso:	100	104
Specific gravity g/cm3 (20°C):	1.01	1.03

CHARACTERISTICS OF THE REACTION HAND MIXED)

Tack free time:	5 seg.	Gel Time :	3 seg.
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PROPERTIES (MACHINE MIXED)

PROPERTIES (MACHINE MIXED)	TEST METHOD
Density: (Kg/m3)	900
Extensible force (Mpa):	17
Elongation at Break (%):	342
Hardness (Edge A):	90
Hardness (Edge D):	50
Resistance break:	35
Fire characteristics:	Self-extinguishable
	DIN EN ISO 6383-1





Waterproofing

MEMBRANE DESMOPOL One-component polyurethane membrane

DESMOPOL is a highly elastic one-component polyurethane membrane of liquid application and cures in cold. Used for a lasting waterproofing since it cannot be dissolved in water. Once it is applied it creates a hydrophobic monolithic membrane and for that reason it seals, protects and waterproofs the surface. Applicable in stagnation water zones, it possesses a high elasticity and is not affected by sunlight. This material is used to obtain a perfect seal in contact with the water.

IDEAL FOR WATERPROOFING:

- Roofs
- Balcony y porch
- Damp areas, floor tiles, like bathrooms
- Swimming pools, kitchens etc
- Parterres
- Channels
- Water tanks
- Fountains
- Bridges, tunnels, etc.
- Metalic surfaces
- Polyurethane foam protection



PROPERTIES

- Completely waterproof without cracks nor the possibilities of filtration
- Perspirable to water vapor, elastic and trafficable
- Easy application
- Resistant to the stagnant water
- It maintains its mechanical properties in temperatures from -30°C to +90°C
- Resistance to the ice
- Completely adherent without having to use other fixative products
- In case it is damaged the membrane in question can be repaired in minutes.

PRESENTATION

- Supplied in metallic containers of 6 or 25 Kg
- Available in Gray, White, Slate colour

PERFORMANCES

- W2: from 2 to 2.5 Kg/sqm.
- W3: from 3 to 3.5 Kg/sqm.



LIQUID PRODUCT TECHNICAL DATA

95% dry material in xiol

REQUEST	VALUE	CLASSIFICATION
Minimum guaranteed working life	10 years	W2
Climate zone	Severe	S
Roof pitch	< 5%	S1
Minimum surface temperature	-20 °C	TL3
Maximum surface temperature	60 °C	TH2

MEMBRANE TECHNICAL DATA

PROPERTY	UNITS	TEST METHOD
Service temperature	°C	----- -40 a80
Temperature of SOC Hardness Traction Resistance @ 23 °C	°C Shore D Kg./csqm.(N/msqm.)	----- 200 ISO R868 /DIN 53 505/ASTM D2240 70 DIN 52455/ASTM D412 55
Percent elongation @ 23 °C Elasticity Percentage @ -25 °C	% %	DIN 52455/ASTM D412 >600 ASTM D412 450
Water vapor transmission	gr./sqm..HR	ASTM E96 (Water method) 0,8
Adhesion to concrete	Kg./csqm.(N/msqm.)	ASTM D4541 >20(>2)
QUV Accerated Weathing test 4hr UV, @ 60°C (UVB lámpara) & 4nr COND@ 50°C	Hours	AST



DESMOPOL-POLYUREA is a highly elastic Polyurea membrane bi-component modified with bitumen, quick curing and an excellent adhesion, application in cold, used for lasting waterproofing since it cannot be dissolved in water. Once it is applied it creates an elastic membrane with excellent mechanical properties.

The **DESMOPOL-POLYUREA** membrane enables all kinds of waterproof coating solution by means of polyurethane and bitumen resins, the liquids have a high chemical stability. It is an extremely interesting system due to its adjustable prices and quick execution.

The application of these products forms a continuous seamless film, with a thickness of between 2 and 3 mm. With its exceptional physical and mechanics properties it provide an excellent durability, the possibility to waterproof difficult access zones and above all on all types of support.

The **DESMOPOL-POLYUREA** membrane makes use of polyurethane and bitumen resins, pure or modified of different characteristics. While the polyurethanes are cost effective, Polyurea enjoys some of the upper mechanical characteristics, given its greater elasticity and resistance. On the other hand, the hybrid systems can be adapted to a more extensive field of applications, but the presence of catalysers makes them more sensitive to presence of water and to the application temperature.

IDEAL FOR WATERPROOFING:

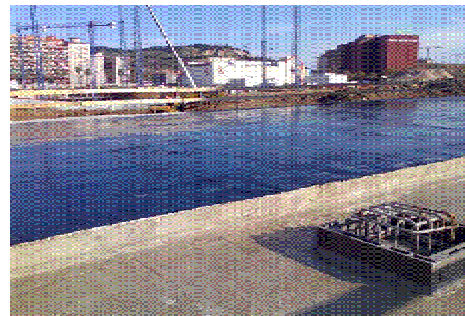
- Roofs
- Balcony y porch
- Damp areas, floor tiles, etc
- Swimming pools, kitchens etc
- Parterres
- Water tanks
- Fountains
- Bridges, tunnels, etc.



PROPERTIES

- It is perfectly elastic. The great product elasticity (allows an elongation of more than the 2.000%, recovering its original form) prevents the formation of cracks, adapting to all work deformations.
- Seamless sheet without any type of welding or overlapping. The great elasticity and high cohesion allows it to extend over large surfaces seamlessly. The cohesion of the recently applied material is perfect, forming an all homogeneous preventing dangerous welding joint or adhesives.
- Great adhesion on mortar, the test specimen submitted to the trial of adhesion UNIT 7158 (UNIT 104-281/4-4) did not present cracks, nor were block of mortar removed. Any filtration due to damage is easily traceable due to the non circulation of water under the membrane.
- The properties of the **DESMOPOL-POLYUREA** are not altered after submerging the test specimen in seawater salinity 45 per thousand at 60°C for 168 hr., according to the chemical trial compatibility described in ISO 6072. It resists acid and alkaline water, petrol, fuel oil, oil, hydrochloric and sulfuric acid, without decomposing.
- Does not melt at high temperatures nor breaks with the cold. The softening point is over 90°C and the point of fragility Fraass, is lower than - 20°C, it can support all thermal variations between winter and summer in all climates.

- Does not slide with accordance to UNE 104-281/4-3 it is invalid. It does not flow in exposed vertical walls during the summer sun.
- Rejoins itself after splitting or perforating due to its great cohesion, is self-repairing
- Capable of forming metallic complexes it allows a sandwich structure with an aluminum sheet that is 100% watertight to all kinds of liquids and gases.



PRESENTATION

- Supplied in metallic containers of comp.. TO 20 Kg. + comp.. B 20 Kg
- Black in colour

TECHNICAL DATA SHEET

PROPERTIES	UNITS	METHOD	RESULT
Service temperture	°C	-----	-40 a 80
Shock temperture	°C	-----	150
Traction resistance @ 23 °C	Kg/cm ² (N/mm ²)	DIN 52445 / ASTM D412	20(2)
Percentage of elasticity @ 23 °C	%	DIN 52445 / ASTM D412	>2000
Decline Capacity (after 300% alargam.)	%	ASTM D412	< 1 %
Hardness	Shore A	ISOR868/DIN53505/ASTMD2240	35
QUV Accelerated Weathering Test (4hr UV @ 60° (UVB – Lamp.) y 4hrCond @50°C)	-	ASTM G35	passed 2000Hr
Thermal stability (100 days @ 80°C)	-	EOTA TR011	Passed



Waterproofing

MEMBRANE DESMOPOL - T

Polyurethane Membrane One-component transparent

DESMOPOL - T is a highly elastic polyurethane one-component transparent membrane, liquid-applied and dries in the cold, used for a lasting waterproofing.

IDEAL FOR WATERPROOFING OF:

- Balconies and porches
- Glass and reinforced glass
- Glass bricks walls
- Transparent plastics (GFK, policarbonato...)
- Metallic surfaces
- Waterproofing and protection of wood and bamboo



PROPERTIES

- Completely waterproof without cracks or the possibilities of filtration
- Perspirable to the water vapor, elastic and passable
- Easy application
- Resistant to the stagnant water
- Maintains its mechanical properties in temperatures from -30°C to +90°C
- Resistant to the ice
- In case it is damaged the membrane in question can be repaired minutes.

PRESENTATION

- Supplied in metallic containers of 5 or 20 Kg.
- Transparent gloss

PERFORMANCES

- Approximately between 0.8 to 1.2 Kg/sqm.
- In 2 or 3 layers





Waterproofing

MEMBRANE SETIPOL

One-component acrylic membrane

SETPOL is an one-component acrylic membrane liquid-applied and dries in the cold, used for waterproofing and re-waterproofing of roof, cantilevers, French doors, etc it is presented in a semi-fluid paste dispersed in water, based on polymer resins, pigments and ultraviolet inhibiting stopping from weathering .

IDEAL FOR WATERPROOFING OF:

- Gutters, Eaves Channels
- Terraces
- Fiber cement cladding
- Waterproofing with a minimum slope of the 5%

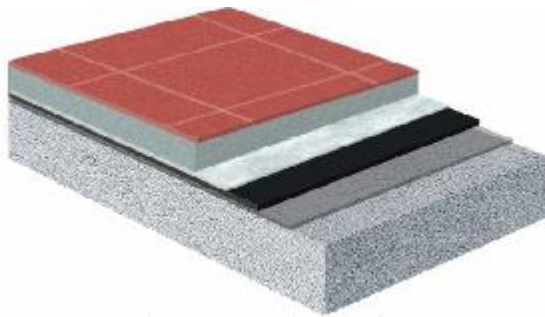
ADVANTAGES

- Great adhesion and adaptability. Presented as a fluid paste, it adapts to all surfaces, with a great easy of application in corners and accessible to small areas. The perfect adhesion does not allow the circulation of water under the waterproofing, located a lot better, possible sheet breaks.
- Great product elasticity, over 390%.
- Continuous sheets. It allows for the formation of a continuous sheet without joint on the whole surface, preventing possible welding errors.
- Temperatures resistance. The product has a perfect resistance, temperatures from -20 °C + 90 °C without altering its elasticity properties, waterproof and resistance to weathering.

APPLICATION

- Can be applied by brush, roller or airless gun.
- Clean the support correctly (dust, moss, grease, ...) and should be dry.
- Be assured that no detached parts exist that should have been removed.
- On tile and concrete proceed to apply the first layer with the product diluted with a 15% of water to increase the penetration and adhesion.
- Apply the first layer, with approximately 0.750kg/sqm., impregnating the frame of the fiberglass and then leave it to dry.
- Apply the second layer with approximately 0.750 – 1 kg/sqm.. Finally use 2 kg/sqm.and if need be a third application.
- Product not to be applied in temperatures lower than 5 ° C or in rain. Nor apply on surfaces that are above 45°C.



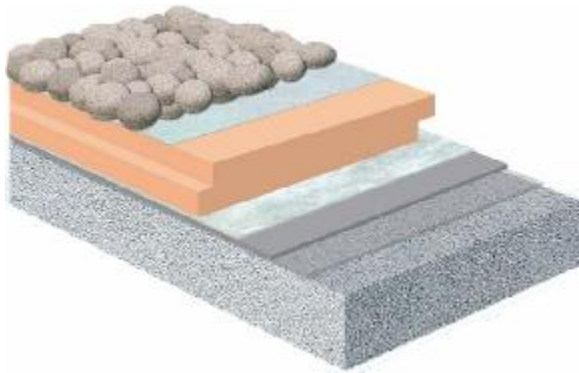


SYSTEM T-1
Conventional roof tile

TRAFFICABLE FLAT ROOFS CONSTITUTED WITH BY:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-1</p> <p>Conventional floor tile</p>	<p>Concrete, mortar, cement glue, lightweight concrete, etc</p>	<p>Repair of JOINTS and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with a gun and leveled with spatula.</p> <p>Primer: DESMOPOL PRIMER, Applied by roller or gun</p> <p>Waterproof membrane: DESMOPOL-POLYUREA Applied with a roller in two layers. Reinforced with GEOTEXTILES netting.</p> <p>Anti-stab Sheet: Polypropylene GEOTEXTILES</p> <p>Compressed Sheet: Mortar or concrete</p> <p>Ceramic finished: Indifferent</p>	<p>Depends on the application</p> <p>0.250 Kg /sqm.</p> <p>1.5 to 2 Kg/sqm.</p> <p>250 gr/sqm.</p> <p>1.5 to 2 cm</p>

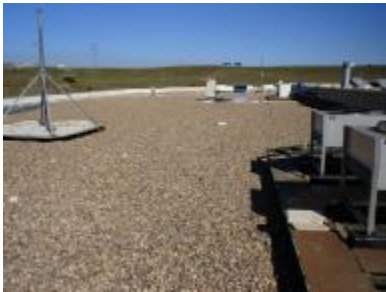




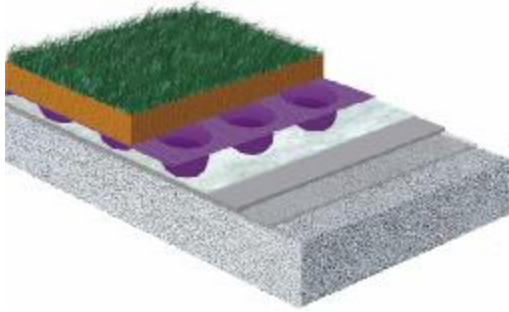
SYSTEMS Waterproofing

SYSTEM T-2 Inverted roof

NON TRAFFICABLE FLAT ROOFS MADE OF:



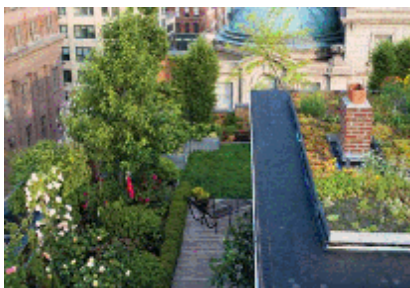
	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-2</p> <p>Inverted roof</p>	<p>Concrete, mortar, cement glue, lightweight concrete, etc</p>	<p>Repair of JOINTS and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with a gun and leveled with spatula.</p> <p>Primer: DESMOPOL PRIMER, Apply with a roller or gun.</p> <p>Waterproof membrane: DESMOPOL Apply two layers with roller. Reinforce with GEOTEXTILES netting.</p> <p>Anti-stab layer: Polypropylene GEOTEXTILES</p> <p>Thermal insulation: Extruded POLYSTYRENE (EST)</p> <p>Vapor diffusion layer: Polypropylene GEOTEXTILES</p> <p>Gravel Finish: Round Gravel</p>	<p>Depends on the application</p> <p>0.250 Kg /sqm.</p> <p>1.5 to 2 Kg/sqm.</p> <p>250 gr/sqm.</p> <p>4 cm</p> <p>250 gr/sqm.</p> <p>2 to 4 cm</p>



SYSTEM T-3
Conventional green roof

NON TRAFFICABLE FLAT ROOFS MADE OF:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-3</p> <p>Conventional green roof</p>	<p>Concrete, mortar, cement glue, lightweight concrete, etc</p>	<p>Repair of JOINTS and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with gun and leveled with spatula.</p> <p>Primer: DESMOPOL PRIMER, Apply with a roller or gun.</p> <p>Waterproof membrane: DESMOPOL Apply two to three layers with roller. Reinforce with GEOTEXTILES netting.</p> <p>Anti-stab layer: Polypropylene GEOTEXTILES</p> <p>Drainage POLIETILENE</p> <p>Topsoil: TOPSOIL</p>	<p>Depends on the application</p> <p>0.250 Kg /sqm.</p> <p>2.5 to 3 Kg/sqm.</p> <p>250 gr/sqm.</p> <p>500 gr/sqm.</p>





SYSTEM T-4 Conventional round edged roof

NON TRAFFICABLE FLAT ROOFS MADE OF:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
SYSTEM T-4 Conventional round edged roof	Concrete, mortar, cement glue, lightweight concrete, etc	<p>Repair of JOINTS and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with gun and leveled with spatula.</p> <p>Primer: DESMOPOL PRIMER, Apply with a roller or gun.</p> <p>Waterproof membrane: DESMOPOL Apply two to three layers with roller. Reinforce with GEOTEXTILES netting</p> <p>Anti-stab layer: Polypropylene GEOTEXTILES</p> <p>Finished layer: Gravel finish</p>	<p>Depends on the application</p> <p>0.250 Kg /sqm.</p> <p>2 to 2.5 Kg/sqm.</p> <p>250 gr/sqm.</p> <p>2 to 4 cm</p>

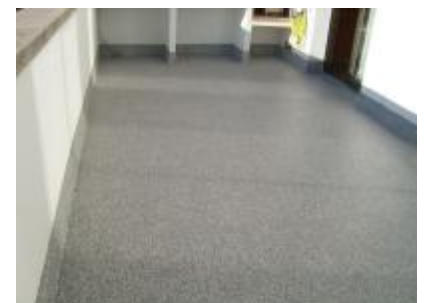
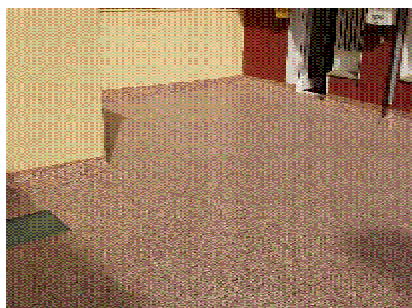


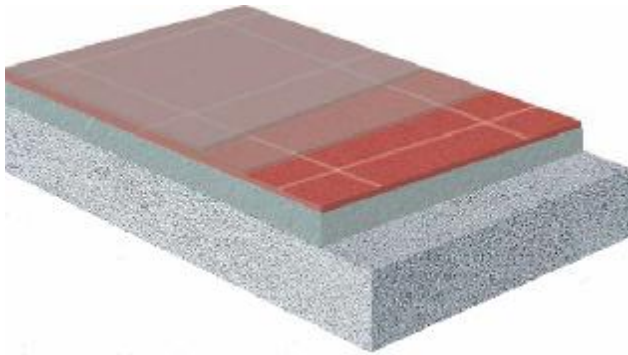


SYSTEM T-5
Trafficable flat roof

TRAFFICABLE FLAT ROOFS MADE OF:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
SYSTEM T-5 Trafficable flat roof	Concrete, mortar, cement glue, lightweight concrete, etc	Repair of joint and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with gun and leveled with spatula.	Depends on the application
		Primer: DESMOPOL PRIMER, Apply with a roller or gun.	0.250 Kg /sqm.
		Waterproof membrane: DESMOPOL Applied two to three layers with roller. Reinforce with GEOTEXTILES netting	2 to 2.5 Kg/sqm.
		Anti-stab layer: QUARTZ COLOR from 0.7 to 0.9 mm.	2 to 3 Kg/sqm.
		Finished layer: DESMOPOL ADY Apply two layers with roller	0.400 to 0,500 Kg/sqm.



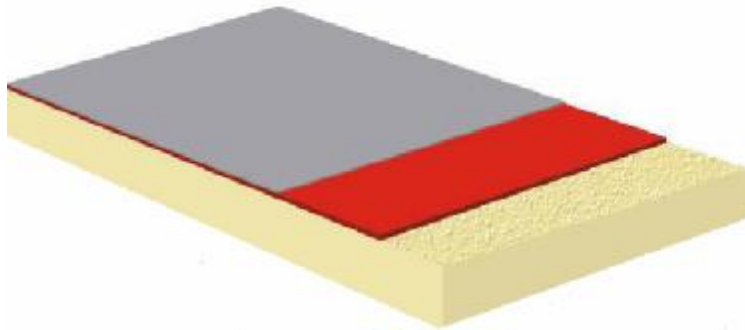


SYSTEM T-6
Transparent flat roof

TRANSPARENT FLAT ROOFS MADE OF:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-6</p> <p>Conventional round edged roof</p>	<p>Baldosa existente</p>	<p>Clean-up: Clean and degrease the whole surface area.</p> <p>Primer: DESMOPOL PRIMER -T, applied with sponge, cloth to dampen the whole support.</p> <p>Waterproof membrane: DESMOPOL-T Applied in two to three layers with roller.</p> <p>Anti-stab layer: (optional) Add to the DESMOPOL-T in proportion of 7%, in case of spilling the nonskid load will leave it the support will tinted</p>	<p>0.300 Kg /sqm.</p> <p>2 to 2.5 Kg/sqm.</p> <p>7%</p>





SYSTEMS Waterproofing

SYSTEM T-7 Roof with polyurethane foam

NON TRANSITABLE FLAT ROOF:

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-7</p> <p>Cover with polyurethane foam F-2091.1</p>	<p>Poliurethane Foam F-2091.1</p>	<p>Clean-up: Clean and degrease the whole surface area.</p> <p>Poliurethane foam: F-2091.1 , Applied with projection machine of polyurethane.</p> <p>Membrana impermeabilizante (cubierta inclinada): SETIPOL Applied with roller or airless in two layers</p> <p>Membrana impermeabilizante (cubierta plana): DESMOPOL Applied with roller or airless in two layers</p>	<p>1 a 1,5 Kg/sqm.</p> <p>1,5 a 2 Kg/sqm.</p>





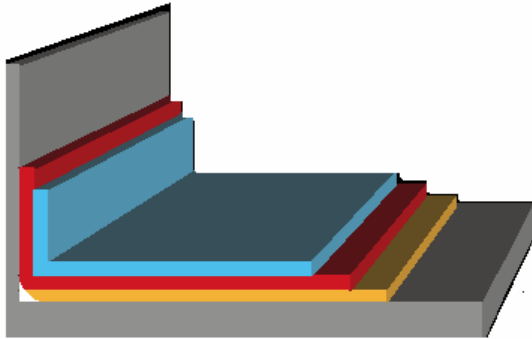
SYSTEMS Waterproofing

SYSTEM T-8 Roof Sheet

VISITABLE NON TRAFFICABLE ROOF

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-8</p> <p>Roof sheet</p>	<p>Sheet, galvanized Sheet, Pre-lacquered fiber cement sheet</p>	<p>Clean-up: Clean and degrease the whole surface area.</p> <p>Primer: EPOXY ZINC PHOSPHATE, Applied with a roller or gun.</p> <p>Waterproof membrane: DESMOPOL Applied in two layers with a roller or gun.</p> <p>Finished layer: DESMOPOL-ADY Applied in two layers with a roller or gun.</p>	<p>0.150 Kg /sqm.</p> <p>1 a 1.5 Kg/sqm.</p> <p>0.250 gr/sqm.</p>





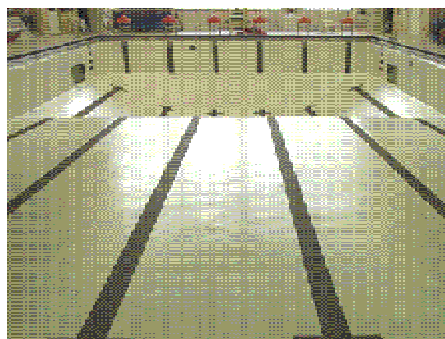
SYSTEMS Waterproofing

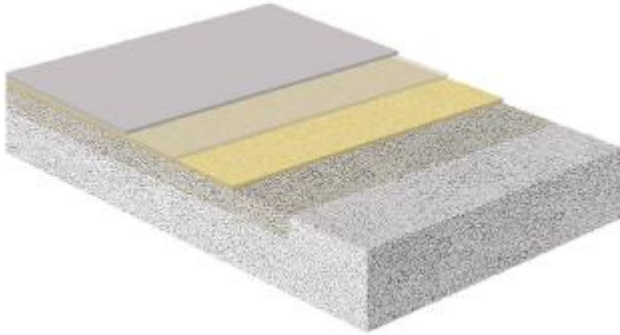
SYSTEM T-9

Swimming pools, artificial lakes, fountains

WATER COVERS, SWIMMING POOLS, TANKS,. ARTIFICIAL FOUNTAINS, ETC

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-9</p> <p>Swimming Pool</p>	<p>Gresite Tile Polyester Concrete Mortar</p>	<p>Repair of joint and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with gun and leveled with spatula.</p> <p>Primer: DESMOPOL PRIMER, Applied with a roller or gun.</p> <p>Waterproof membrane: DESMOPOL Applied two to three layers with roller. Reinforce with GEOTEXTILES netting.</p> <p>Finished layer DESMOPOL ADY 2C Applied in two layers with a roller.</p>	<p>Depende de la aplicación</p> <p>0.250 Kg /sqm.</p> <p>2 to 2.5 Kg/sqm.</p> <p>0.250 to 0.300 Kg/sqm.</p>





SYSTEMS Waterproofing

SYSTEM T-10 Polyurea P-2049

FOR ALL SYSTEMS DESCRIBED LESS SYSTEM T-6

	SUPPORT	MEMBRANE CREATION	PERFORMANCE
<p>SYSTEM T-10</p> <p>Polyurea P-2049</p>	<p>Independent</p>	<p>Support preparation: The support should be clean and sound as possible. otherwise could be harmful to mechanical systems of preparation to the surfaces</p> <p>Repair of joints and cracks: DESMOSEAL MASILLA PU, Applied locally at the joint of dilation and the cracks with gun and leveled with spatula.</p> <p>Primer: (DAMP SUPPORT) DESMOPOL PRIMER, Applied with a roller or gun.</p> <p>(VITRIFIED SUPPORT) PRIMER – TEC.4U, applied with a roller or gun.</p> <p>Elastomer: POLYUREA P-2049 applied with a projection equipment (pressure y temperature)</p> <p>Finished layer DESMOPOL ADY or DESMOPOL ADY 2C applied with a roller or gun.</p>	<p>Depends on the application</p> <p>0.200 Kg /sqm.</p> <p>0.300 Kg /sqm.</p> <p>1.5 to 2 Kg/sqm.</p> <p>0.250 to 0.300 Kg/sqm.</p>

MACHINERY

REACTOR E-10

DESCRIPTION

The REACTOR AND-10 can be used for small polyurethane foam applications, polyurea and hot or cold epoxies. Compact design and portable, it counts on tanks of self-sufficient material. Its reduced size provides numerous working advantages for accessible to small spaces. Due to its reduced electric requirements of only 230v and its simple use, the REACTOR AND-10 saves time and money.



TECHNICAL SPECIFICATION REACTOR E-10	
Maxium pressure	138 bars (2000 psi.)
Discharge	5.4 kg/min
Potencial Heat	2.000 watts
Maximum hose lenght	33 Mts.
Weight	72 Kg.

EQUIPMENT GH 833

DESCRIPTION

The **EQUIPMENT GH 833** is considered as the king of the airless hydraulics. It has direct transmission, and is capable of supporting aggressive work environments. It is designed for roofs coating application, tunnels, water containers, bridges. For dense products like: polyurethane membranes, asphalt, cement contact, epoxies, putty, etc.



TECHNICAL SPECIFICATION EQUIPO GH 833	
Maximum nozzle diameter	0.065"
Maximum fluid discharge (1/min.(gpm)	15.0 (4.0)
Maximum pressure-bar (psi)	280 (4,000)
Motor type	Honda
Potential – KW (CV)	9.7 (13.0)
Weight	158 Kgr.

REACTOR E-XP2

DESCRIPCIÓN

The REACTOR E-XP2 is the first exclusive **Polyurea P-2049** dispenser its incorporated diagnoses guarantee at all moment the correct mixture proportion, valves, pressure regulator, heaters, the automatic disconnection system. Digital pressure control, less pulsation, load improvement on pump and stable pressure are characteristics that make the reactor as the latest bench mark systems in the application of **Poliurea P-2049**



TECHNICAL SPECIFICATION REACTOR E-XP2	
Maximum pressure	240 bars (3,500 psi.)
Discharge	8 kg/min
Potential heat	15,300 watts
Maximum hose lenght	64 and 94 Mts.
Weight	181 Kgr.

REACTOR H-25

DESCRIPCIÓN

The REACTOR H-25/HXP2 is a reactor, with a light hydraulic system and durable, it combines the Gusmer horizontal pump system with the Graco technology, including digital controls and system diagnosis, the motor cuts out the hydraulics pump after a period inactivity to avoid overheating. Eligible for the spraying of **Foam G-2049** and **Polyurea P-2049**



TECHNICAL SPECIFICATION REACTOR H-25	
Maximum pressure	138/240 bars (2.000 psi./3500 psi.)
Discharge	11 kg/min - 15,7 kg/min
Potential heat	15,300 watts
Maximum hose lenght	94 Mts.
Weight	250 Kgr.

TECHNICAL DATA SHEET MANUAL

Polyurethane systems

System G-2049, System F-2091.1, System C-2082.0

Membranes

POLYUREA P-2049, DESMOPOL, DESMOPOL-POLYUREA, DESMOPOL-T, SETIPOL.

Primers

DESMOPOL PRIMER, DESMOPOL PRIMER - T

Protection Varnishes

DESMOPOL-ADY, DESMOPOL-ADY.2C

Auxiliars

DESMOSEAL MASILLA-P.U, DESMOPOL SOLVENT, ACCELERATOR DESMOPOL

APPLICATIONS

This polyurethane system has been specially formulated for general spray work, where a low density, good insulation properties and Euroclass E properties are required. The foam has a good flowability and adhesion. The system is blown with HFC-365mfc, and has therefore zero ODP.

RAW MATERIALS

Component R is a mixture of various chemicals, which have been adapted to the application. The principal ingredient is a non-polluting polyol. The blowing agent is HFC-365mfc so there are no VOCs. Other constituents such as catalysts and stabilisers are added in order to optimise performance and keeping qualities. Storage temperature: min. +10°C, max. +25°C.

Component I consists of one chemical only: MDI isocyanate. The storage in open containers or at temperatures below 15°C causes crystallisation. Component I reacts with water and must be protected from moisture.

CONDITIONS OF APPLICATION

Air humidity	< 85 %
Surface humidity	< 20 %
Ambient temperature	> 5 °C
Surface temperature	> 5 °C
Air velocity	< 30 km/h
Machine temperature (incl. hoses)	35 – 60 °C

COMPONENT PROPERTIES

COMPONENT R (POLYOL) COMPONENT I (ISO 99)

Specific gravity g/cm ³ (20°C):	1.22	1.23
Viscosity mPa·s (cp) (25°C):	385	225
Storage (unopened):	max. 6 months	max. 6 months
Mixing ratio – by weight:	100	101
Mixing ratio – by volume:	100	100
Hydroxyl value	XXX	
Isocyanate index	XXX	

FOAM CHARACTERISTICS AT 20°C (hand mixed)

Cream time:	sec. 3	Gel time:	sec. -
Tackfree time:	sec. 11	Rise time:	sec. 11

PROPERTIES (machine mixed – 3 layers total of 61 mm)

TEST METHOD

Density, core:	kg/m ³	37	UNE 92120-1
Compressive strength (10% def.):	MPa	0.22	ISO 844
Parallel to rise ()			
E-modulus:	MPa	8.1	ISO 844
Parallel to rise ()			
Thermal conductivity coefficient λ:	W/m-K	0.020	ISO 8301
(aged 24 h/mean temp. = 10°C/⊥)			
(aged 24 h/mean temp. = 24°C/⊥)	W/m-K	0.022	UNE-EN 12667:2002
Closed cells:	%	96	ISO 4590
Burning characteristics:		Euroclass E	UNE-EN 13501-1

APPLICATIONS

This polyurethane system has been specially formulated for general spray work. The foam has a good flowability and adhesion. The system is blown with HFC-365mfc, and has therefore zero ODP.

RAW MATERIALS

Component R is a mixture of various chemicals, which have been adapted to the application. The principal ingredient is a non-polluting polyol. The blowing agent is HFC-365mfc so there are no VOCs. Other constituents such as catalysts and stabilisers are added in order to optimise performance and keeping qualities. Storage temperature: min. +10°C, max. +25°C.

Component I consists of one chemical only: MDI isocyanate. The storage in open containers or at temperatures below 15°C causes crystallisation. Component I reacts with water and must be protected from moisture.

COMPONENT PROPERTIES

	COMPONENT R (POLYOL)	COMPONENT I (ISO 99)
Specific gravity g/cm ³ (20°C):	1.20	1.23
Viscosity mPa·s (cp) (25°C):	350	225
Storage (unopened):	max. 6 months	max. 6 months
Mixing ratio – by weight:	100	103
Mixing ratio – by volume:	100	100

FOAM CHARACTERISTICS AT 20°C (hand mixed)

Cream time:	sec. 2	Gel time:	sec. -
Tackfree time:	sec. 10	Rise time:	sec. 10

PROPERTIES (machine mixed)

Density, core:	kg/m ³	52	BS 4370 part 1 meth . 2
Compressive strength (10% def.):			
Parallel to rise ()	MPa	0.29	ISO 844
E-modulus:			
Parallel to rise ()	MPa	9.3	ISO 844
Dimensional stability:			
(70°C/48h) ()	%	< -4	ISO 2796
Thermal conductivity coefficient λ:			
(aged 24 h/mean temp. = 10°C/⊥)	W/m·K	0.022	ISO 8301
(aged 24 h/mean temp. = 24°C/⊥)	W/m·K	0.024	ISO 8301
(aged 3 weeks/mean temp. = 10°C/⊥)	W/m·K	0.025	ISO 8301
(aged 3 weeks/mean temp. = 24°C/⊥)	W/m·K	0.027	ISO 8301
Closed cells:	%	97	ISO 4590
Burning characteristics:		B2 / EUROCLASS E	DIN 4102

APPLICATIONS

Ultra-light, semirigid polyurethane foam formulated for the insulation of cavity walls and other building parts. The foam is diffusible.

RAW MATERIALS

Component R is a mixture of various chemicals, which have been adapted to the application. The principal ingredient is a non-polluting polyol. Other constituents such as catalysts and stabilisers are added in order to optimise performance and keeping qualities. Recommended storage temperature: minimum +10°C.

Component I consists of one chemical only: MDI isocyanate. The storage in open containers or at temperatures below 8°C causes crystallisation. Component I reacts with water and must be protected from moisture.

Handling of the materials: see overleaf.

COMPONENT PROPERTIES

Specific gravity g/cm³ (20°C):
 Viscosity mPa·s (cp) (25°C):
 Storage (unopened):
 Mixing ratio – by weight:
 Mixing ratio – by volume:

COMPONENT R (POLYOL)

1.07
 90
 max. 6 months
 100
 100

COMPONENT I (ISOCYANATE 99)

1.23
 225
 max. 6 months
 115
 100

FOAM CHARACTERISTICS AT 20°C (hand mixed)

Cream time:	10 sec.	Gel time:	40 sec.
Tackfree time:	55 sec.	Rise time:	60 sec.

PROPERTIES (hand mixed)

			TEST METHOD
Density, free rise:	kg/m ³	8	BS4370 part 1 meth. 2
Compressive strength (10% def.):			
Parallel to rise ()	MPa	0.009	ISO 844
Perpendicular to rise (⊥)	MPa	0.006	ISO 844
E-modulus:			
Parallel to rise ()	MPa	0.31	ISO 844
Perpendicular to rise (⊥)	MPa	0.16	ISO 844
Dimensional stability:			
(+100°C/48h)	%	< 1	ISO 2796
Thermal conductivity coefficient λ:			
(aged 24h/mean temp. = 10°C/⊥)	W/m·K	0.041	ISO 8301
(aged 24h/mean temp. = 24°C/⊥)	W/m·K	0.043	ISO 8301
(aged 3 weeks/mean temp. = 10°C/⊥)	W/m·K	0.040	ISO 8301
(aged 3 weeks/mean temp. = 24°C/⊥)	W/m·K	0.044	ISO 8301
Closed cells:	%	< 2	ASTM D2856 meth. C
Fire properties		Self extinguishing	ISO 3582

APPLICATIONS

This polyurea elastomer has been developed as a general coating and is well suited for sealing as well as water sealing jobs. There is no need for post cure at elevated temperatures.

RAW MATERIALS

Component R is a mixture of various non-polluting chemicals, which have been adapted to the application. The principal ingredient is a non-polluting polyol. Other constituents such as UV-stabilisers are added in order to optimise performance and keeping qualities. Storage temperature: minimum +10°C. Component I consists of one chemical only: MDI isocyanate. The storage in containers or at temperatures below 15°C causes crystallisation. Component I reacts with water and must be protected from moisture. Handling of the materials: see overleaf.

COMPONENT PROPERTIES

Specific gravity g/cm³ (20°C):
Viscosity mPa·s (cp) (25°C):
Storage (unopened):
Mixing ratio – by weight:
Mixing ratio – by volume:

COMPONENT R (POLYOL)

1.00
475
max. 6 months
100
100

COMPONENT I (ISO 347)

1.03
650 - 900
max. 6 months
104
100

REACTION CHARACTERISTICS AT 20°C (hand mixed)

Cream time: - sec.
Gel time: 3 sec.

Rise time: - sec.
Tack free time: 5 sec.

PROPERTIES (machine mixed)

Density: kg/m 900
Tensile strength: MPa 17
Elongation at break: % 342
Hardness (Shore A): ° 90
Hardness (Shore D): ° 50
Tear resistance: N/mm 35
Burning characteristics self-extinguishing

METHOD

BS 4370 part 1 meth. 2
ISO 527
ISO 527
DIN 53505
DIN 53505
DIN EN ISO 6383-1

DESMOPOL

LIQUID POLIURETHANE MEMBRANE

DESCRIPTION

The product is a liquid material from a pure polyurethane elastomer that produces a continuous elastic membrane, whose properties make it excellent for use in all types of surfaces.

ADVANTAGES

- Does not produce bubbles even in thick applications.
- Requires no primer in most cases.
- Easy application.
- Quick cure even in winter.
- Excellent adhesion on all types of surfaces.
- High resistance to chemicals.
- High resistance to extreme temperatures (between -40 ° C to + 80° C).
- High resistance to abrasion and tension.
- High elasticity.
- The membrane is completely waterproof.
- special primers available for almost every sustrate

APLICACION

Can be applied by roller, brush and airless gun, with no need for priming.

Can be applied in cold weather and wet. The rain before drying does not affect the overall quality of the membrane, while the impact force can leave "craters" in the film may be another layer of the application for adjustment.

SYSTEMS

- Cover passable use.
- Landscaped deck.
- Polyurethane foam.
- Civil works.
- Wetlands.
- Deposits.

LIMITATIONS

Not recommended for waterproofing of swimming pools in contact with chemically treated water.

Recommended sustrate:

Concrete, cement, tile, fiber cement, tile, acrylic repairs and asphalt, wood, rusted metal, galvanized steel.

DESMOPOL

LIQUID POLIURETHANE MEMBRANE

CONDITIONS OF APPLICATION

Hardness: R28 = 15 MPA
Humidity: W <10%
Temperature: 5 ° C - 35 ° C
Relative Humidity: <85%

CONSUMPTION

The yields of the product is 1.5 to 2 Kg./sqm. 1.4 mm thick, applied in 2 layers.

PRESENTATION

Metal containers of 6 and 25 Kg

COLORS

Dark grey and Tile.

CONTAINER STABILITY

12 months at a temperature of 5 ° C to 25 ° C in dry sites. If the bucket is opened to be used immediately.

CLEANING

Cleaning materials are made with Desmopol solvent

TRANSPORT AND STORAGE

Order our Safety data Sheet.

DESMOPOL LIQUID POLIURETHANE MEMBRANE

CLASIFICACION UNDER THE EOTA ´S GUIDE

CONCEPT	VALUES	CLASIFICACION
Guarantee of minimum life span of product:	10 years	W2
Climatic Area:	Severe	S
Tilt deck:	< 5%	S1
Minimum temperature of support:	-20 °C	
Maximum temperature of medium:	60 °C	TH2

TECHNICAL DATA PRODUCT LIQUID 95% dry matter XIOL

	UNITS	METHOD	RESULT
Viscosity :	Cp	ASTM D2196-86	2500
Specific Weight :	gr./cm ³	ISO 2811 / din 53 217 / ASTM D1475	1,3 -1,4
Flash point :	°C	ASTN D93, Copa cerrada	42
Repainting :	Hours	-----	6 a 24
Dry to touch 25 ° C & 55% UR:	Hours	-----	6

TECHNICAL DATA OF THE MEMBRANE

	UNITS	METHOD	RESULT
Service Temperature:	°C	-----	40 a80
SOC ´s temperature:	°C	-----	200
Hardness:	Shore D	ISO R868 /DIN 53 505/ASTM D2240	70
Tensile a 23 °C:	Kg./csqm.(N/msqm.)	DIN 52455/ASTM D412	55
Percentage of Elasticity 23 °C:	%	DIN 52455/ASTM D412	>600
Percentage of Elasticity -25 °C:	%	ASTM D412	450
Steam water transimtion:	gr./sqm..HR	ASTM E96 (Método agua)	0,8
Adhesion to concrete: >20(>2)	Kg./csqm.(N/msqm.)	ASTM D4541	
QUV Best resistance to the elements 4 hr UV, a 60 °C (UVB lámpara) & 4nr COND a 50°C			

DESMOPOL POLYUREA

MODIFIED BITUMEN POLYUREA

DESCRIPTION

Liquid membrane bi-component polyurea-modified bitumen, rapid healing and excellent adhesion, to polymerize as an elastic membrane with excellent mechanical properties.

ADVANTAJES

Practicability in 1 single layer without bubbles

Product of rapid healing

Very good adherence, does not need primer, in the most of cases.

Excellent mechanical properties, high elasticity, resistance to strength and abrasion.

Resist to high and low temperatures: Max. Service temperature 80°C, Max. Shock temperature 200°C. The membranes maintains her properties includes temperatures to -40°C.

High chemical resistance

The water vapor resistance is greater than 10 Mns / g As a vapor barrier is as NBE CT-79

APLICACION

Requires clean support clean hard and as smooth possible.

For increased adhesion may require primer: Holders wet: Desmopol primer

Stands vitrified silica-rich: Desmopol primer w

Mix the two packages (1 / 1 by volume) using an electric mixer.

Can be applied with a roller, spatula or brush, in 1 or 2 layers being the final consumption of 1.5 - 2 kg / m².

In case of dilution, apply only Desmopol Solvent in a proportion max of 10%.

Pot life: 30-45 min

Repainted time 6 y 24 h.

Clean tools and machines with Desmopol solvent

CONDITIONS OF APLICATION, (SUPPORT STANDART)

The support can be clean and dry and as smooth possible

hardness R28 =15pa

Humidity W=10%

Temperature: de 5°C a 35°C

Relative humidity : < 85 %

LIMITATIONS

Not recommended exposure at U.V.

DESMOPOL POLYUREA MODIFIED BITUMEN POLYUREA

RECOMENDED USES

For waterproofing and protection of:

Covered terraces, balconies and rooftops.
Water tanks and irrigation canals.
Platforms bridges and cement
Roofs thin metal or fiber-cement.
Cement or gypsum boards.
Asphalt and EPDM membranes
Baths and spas
Pàrquings and stadiums.
Walls buried.
Covered with heavy protection
Covered with coatings glued
Roof gardens

CONSUMPTION

The yields of the product is 1,5 – 2 kg / m² in 1 ó 2 layers.

PRESENTATION

Metallic drums: comp. A 20 l. + comp. B 20 l.

COLORS

Black

PACKAGIN STABILITY

12 months at a temperature of 5 ° C to 25 ° C in dry sites. If the cube is open should be used immediately.

CLEANNING

The Cleanning of the materials are made with Desmopol Solvent

TRANSPORTATION AND STORAGE

Request our safety data sheet

DESMOPOL POLYUREA

MODIFIED BITUMEN POLYUREA

TECHNICAL DATA OF LIQUID PRODUCT

+ - 90 % dry Matter Xileno

Test adherence to standarts ASTM D4541

PROPIERTES	UNITS	METHOD	RESULT
Resine Viscosity comp. - A	Cp	ASTMD 2196-86 a 25°	1300
Vuscosity Comp. – B	Cp	ASTMD 2196-86 a 25°	4300
Mixing Viscosity	Cp	ASTMD 2196-86 a 25°	3000
Especific wheigh of mixing	Gr/cm3	ISO2811/din53217/astmd 1475 a 20°C	0,97
Flash point	°C	ASTMD93,Copa cerrada	> 50
Tack free a 25 °C y 55% RH	Hours	-----	1-2
Repainted time	Hours	-----	6-24

MEMBRANE TECHNICAL DATA

PROPIERTES	UNITS	METHOD	RESULT
Service temperature	°C	-----	-40 a 80
Shock temperature	°C	-----	150
Tensile strength at 23 °C	Kg/cm ² (N/mm ²)	DIN 52445 / ASTM D412	20(2)
Eleaticity percent at 23 °C	%	DIN 52445 / ASTM D412	>2000
Regression cappability (tras 300% alargam.)	%	ASTM D412	< 1 %
hardness	Shore A	ISOR868/DIN53505/ASTMD2240	35
QUV weaterhability test (4hrUV a 60° (UVB – Lamp.) y 4hrCond a 50°C)	-	ASTM G35	2000Hr passed
Termical stability (100 dias a 80°C)	-	EOTA TR011	Passed

Hipochlorite Sodium: 5%	10days	It does not affect
Hidrólisi Resistance: 8% potassium hydroxide	10days at 50°C	It does not affect
Water absorption	10 Days	< 0,9 %

DESMOPOL-T**LIQUID TRANSPARENT POLIURETHANE MEMBRANE****DESCRIPTION**

The product is a liquid material from a pure polyurethane elastomer that produces a continuous elastic membrane, whose properties make it excellent for use in all types of surfaces. The transparency of Desmopol-T allows a support protection without changing its colour.

ADVANTAGES

Completely transparent membrane

Requires no primer in most cases.

No requires dilution.

Easy application.

Excellent adhesion on all types of surfaces.

high resistance to weathering and U.V.

High resistance to chemicals.

High resistance to extreme temperatures (between -40 ° C to + 80° C).

High resistance to abrasion and tension.

High elasticity.

The membrane is completely waterproof and resist permanent contact with wather.

special primers available for almost every sustrate

APLICACION

Can be applied by roller, brush and airless gun, with no need for priming.

Can be applied in cold weather and wet. The rain before drying does not affect the overall quality of the membrane, while the impact force can leave "craters" in the film may be another layer of the application for adjustment.

It is advisable to aerate the membrane before their polymerization.

SYSTEMS

Cover passable use.

Landscaped deck.

Polyurethane foam.

Civil works.

Wetlands.

Recommended sustrate:

Concrete, cement, tile, fiber cement, tile, acrylic repairs and asphalt, wood, rusted metal, galvanized steel, stones.

DESMOPOL-T

LIQUID TRANSPARENT POLIURETHANE MEMBRANE

CONDITIONS OF APPLICATION

Hardness: R28 = 15 MPA
Humidity: W <10%

Temperature: 5 ° C - 35 ° C
Relative Humidity: <85%

CONSUMPTION

Minimum total consumption is 1,0 – 1,2 kg.sqm..

PRESENTATION

Metal containers of 4 and 20 Kg

COLORS

Transparent, to apply color consult pigment pastes applicables.

CONTAINER STABILITY

12 months at a temperature of 5 ° C to 25 ° C in dry sites. If the bucket is opened to be used immediately.

CLEANING

Cleaning materials are made with Desmopol solvent

TRANSPORT AND STORAGE

Order our Safety data Sheet.

DESMOPOL - T

LIQUID TRANSPARENT POLIURETHANE MEMBRANE

CHEMICAL RESISTANCE

Hypoclorite of Sodium: 5%	10 days	Does not affect
Hidrolusis resistance: hidroxid of potasium 8%	10 days at 50°C	Does not affect
Water Absobtion	< 1,4%	

TECHNICAL DATA MEMBRANE

	UNITS	METHOD	RESULT
Viscosity :	°C	-----	1000
Specific wheig	gr./cm3	ISO2811/din 53 217 / ASTM D 1475	1
Flash point:	°C	ASTN D93, copa cerrada	42
Repainting	Hours	-----	6 to 24
Dry to the touch	Hours	-----	6

TECHNICAL DATA OF THE MEMBRANE

	UNITS	METHOD	RESULT
Service Temperature:	°C	-----	40 a80
SOC's temperature:	°C	-----	200
Hardness:	Shore D	ISO R868 /DIN 53 505/ASTM D2240	40
Tensile a 23 °C:	Kg./csqm.(N/msqm.)	DIN 52455/ASTM D412	350(35)
Percentage of Elasticity 23 °C:	%	DIN 52455/ASTM D412	>350
Percentage of Elasticity -25 °C:	%	ASTM D412	450
Steam water transmition:	gr./sqm..HR	ASTM E96 (Método agua)	0,8
Adhesion to concrete: >20(>2)	Kg./csqm.(N/msqm.)	ASTM D4541	
QUV Best resistance to the elements 4 hr UV, a 60 °C (UVB lámpara) & 4nr COND a 50°C			

SETIPOL COVERING ACRYLIC COATING

Description

Setipol, is a product of waterproofing, which is presented as a paste dispersed semi fluid in water-based polymer resins, fillers, pigments and ultra violet inhibitors for resistance to the weather.

Advantages

- Great elasticity of the product, higher than 300%.
- Great grip and adaptability. At present itself as a paste-smooth, fits all surfaces with a great ease of application in corners and areas with poor access. The perfect grip does not allow the movement of water below the waterproofing, much better, possible breakdown of the blade.
- Advantages of continuous sheets. It allows the formation of a continuous sheet without boards throughout the surface, avoiding possible mistakes in welds.
- Resistance temperatures. The products perfectly withstand temperatures of -20°C + 90°C without altering their properties of elasticity, impermeability and resistance to weathering

Application

- Can be applied to brush, roller or airless gun.
- Clean properly support (dust, moss, fat,.....) and must be dry. Ensure that no shows that there are parties should be eliminated.
- About baldosín and concrete shall proceed to the implementation of a first layer of product 15% of water to increase penetration and adhesion of the same
- Implement a first layer with a consumption of around 0750 Kg./sqm., pervading armor fiberglass and let dry, apply a second coat with a consumption of around 0750kg / sqm.. The final consumption must be 1 kg./sqm.so it is necessary a third application.
- Do not apply product in temperatures below 5°C , or rainy weather. Nor does it apply in surfaces that are above the 45°C .

Suggested Uses

Waterproofing and Roofing .

Holders recommended

Concrete, ceramics,...

Consumption

2 Kg./ sqm.

Presentation

Packing metallic 5 and 25 kg.

Colors

White, gray, green, red, red tile, black.

Stability pack

Consult safety data sheet.

Precautions

Consult safety data sheet.

Technical data of membrane

UNITS	METHOD	RESULT
Viscosity	ASTM D2196-86	1.200 Cps
Specific weight	ISO 2811/ DIN 53.217 / ASTM D1475	1,3 Gr./cm ³
Flash Point	ASTN D93, closed cup	42 °C
% Solids		65%
Repainted		8-24 hours
Dry to touch 20C & 55% UR		2-4 hours

DESMOPOL PRIMER

PRIMER BI-COMP FOR DESMOPOL SYSTEM

DESCRIPTION

It's a two component epoxy, without solvents, special designed to increase the DESMOPOL system adherence and other products based in polyurethanes. DESMOPOL PRIMER is not a toxic with a 0% of volatile matter.

ADVANTAGES

Excellent adherence in the most surfaces.
Without solvents, can be used in poorly ventilated areas.
Drying even a low temperatures.
Water repellent.
Can be charged with solids to the full of irregularities.
Can be utilized for geotextile reinforcement and facilitate their entry in build.

APLICACION

The surface can be as clean possible, if is necessari utilize pression water, remove rests of oil, fats, and other contaminants, La superficie debe estar lo más limpia posible si es necesario utilizar agua a presión, eliminar restos de aceite, grasas y otros contaminantes, cement grow bit stuck.
If the support it's very irregular, can be mixed DESMOPOL PRIMER with mineral charges to regularize.
mix two components and apply in open spaces, can be dilute the product with water to decrease the consumption.(note that in areas where there is water film is not advisable dilution of the product)
The application can be done by brush or roller, and Desmopol implementation can be done elapsed 130 - 60 minutes.

RECOMENDED USES

Primer to increase DESMOPOL system adherence.
Adherence between layers
Adherence on asphalt
Excelent Primer system, included for other systems.

SUPORTS

Concrete, wet concrete, including water film. aluminum, galvanized steel, marble, etc ...

LIMITATIONS

Plastic materials. We recommend a pre-test prior to the application to media other than those listed above.

DESMOPOL PRIMER

PRIMER BI-COMP FOR DESMOPOL SYSTEM

CONSUMPTION

Depending on the porosity of the support can range from consumption 100 y 300 gr./sqm..

PRESENTATION

In 4kg. components A 1,6 + B 2,4

COLORS

Incolore

PACKAGE STABILITY

12 months at a temperature of 5 ° C to 25 ° C in dry sites. If the cube is open should be used immediately.

CLEANING

La limpieza de los materiales se realiza con disolvente DESMOPOL

TRANSPORT AND STORAGE

Request our safety data sheet

TECHNICAL DATES

PROPIERTES	UNITS	COMP A (Isocyanate)	COMP B (Polyols & amines)
Density	gr/cm3	1,2	1
Viscosity	Mpas.	200	3.500
Colors		brown	Transparent
Mixing ratio by volume	%	1 part of A	2 part of B
Mixing ratio by weigh	%	1 part of A	1,5 part of B

ACCESSION BY STANDARDS TEST ASTM D4541

MATERIAL	UNITS	RESULT
Steel or Galvanized	> 10mPa	
Concrete	> 4mPa	Breaking concrete
Mortars	> 4mPa	Breaking mortar
Márbel	> 4mPa	Breaking marbel
	> 5mPa	Rupture of adhesive test



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