Maris Polymers®
POLYURETHANE SYSTEMS

MARISEAL® KATALYSATOR

TECHNICAL DATA SHEET

Date: 01.06.2017 – Version 17

Accelerating additive

CONSTRUCTION

Product description

The MARISEAL® KATALYSATOR is an accelerating additive for use with the MARISEAL® 250 / 260 / 270 / DETAIL / etc liquid-applied polyurethane waterproofing membranes.

Advantages

The MARISEAL® KATALYSATOR accelerates the MARISEAL® liquid-applied polyurethane waterproofing membranes allowing it to cure homogenous, at a quicker rate, even at low temperatures, so an overcoating is possible within 3-5hours.
The MARISEAL® KATALYSATOR enables the MARISEAL® liquid-applied polyurethane waterproofing membranes to be applied in any desirable thickness, without forming bubbles, so it can be used as an additive for the application of MARISEAL liquid-applied polyurethane waterproofing membranes in combination with the MARISEAL FABRIC in the wet-in-wet application method.

Uses

The MARISEAL® KATALYSATOR is mainly used when the MARISEAL® 250 or 260, needs to be applied in very low temperatures or when the MARISEAL® 250 or 260, needs to be applied in combination with the MARISEAL FABRIC in the wet-in-wet application method (higher coating thicknesses in one layer)

The MARISEAL® KATALYSATOR accelerates the MARISEAL liquid-applied polyurethane waterproofing membranes waterproofing coating for:

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Balconies, Auxiliary Rooms, etc
- Waterproofing of Pedestrian and Vehicular traffic Decks
- Waterproofing of Green Roofs, Flowerbeds, Planter Boxes
- Protection of Polyurethane Foam Insulation
- Waterproofing and protection of Concrete constructions like Bridge-Decks, Tunnels, Stadium Stands, Car Parks, etc.

Consumption

The mixing ratio of the MARISEAL® liquid-applied polyurethane waterproofing membranes to the MARISEAL® KATALYSATOR is:

MARISEAL® liquid membrane : MARISEAL® KATALYSATOR = 100 : 2 or 100:3 by weight

So : 25kg : 0,5kg or 25kg : 0,75kg

Dosage *

Mixing Ratio of MARISEAL® 250/260 to MARISEAL® KATALYSATOR	Between 25kg to 0, 50kg and 25kg to 0,75kg (100 : 2 and 100:3 by weight)
Pot Life @ 20ºC, 100ml	20min (2%) - 30min (3%)
Rain stability Time @ 20ºC, 1.5mm coating thickness	3hours (2%) – 1,5-2hours(3%)

Application

Stir the MARISEAL® liquid-applied polyurethane waterproofing membranes well, before using. Add the correct quantity of MARISEAL® KATALYSATOR. The MARISEAL® KATALYSATOR and the MARISEAL® liquid-applied polyurethane waterproofing membranes should be mixed by low speed mechanical stirrer, according to the stipulated mixing ratio, for about 3-5 min.
ATTENTION: The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

After the mixing, pour the mixture onto the prepared surface to be waterproofed, and spread it out. All application instructions and/or techniques of the MARISEAL® liquid-applied polyurethane waterproofing membranes need to be observed and followed.
ATTENTION: Make sure to use the MARISEAL® liquid-applied polyurethane waterproofing membranes +MARISEAL® KATALYSATOR mixture, within the stipulated Pot Life.

Packaging

MARISEAL® KATALYSATOR is supplied in 1 kg, 0.750 kg, 0.450 kg and 0.180 kg metal pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5^0-30^0C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

TÜVRheinland® CERT ISO 9001

TÜVRheinland® CERT ISO 14001

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CONSTRUCTION

Safety measures

See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.

TÜVRheinland® CERT ISO 9001

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Maris Polymers®
POLYURETHANE SYSTEMS

MARISEAL® 250 FLASH

TECHNICAL DATA SHEET

Date: 01.06.2017 – Version 17

CONSTRUCTION

Liquid-applied polyurethane waterproofing membrane

Product description

MARISEAL® 250 FLASH is a premium, **semi-thixotropic**, liquid-applied, highly permanent elastic, cold applied and cold curing, one component polyurethane membrane used for long-lasting waterproofing.

The MARISEAL® 250 FLASH is based on pure elastomeric hydrophobic polyurethane resins, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Cures by reaction with ground and air moisture.

Advantages

- Simple application (roller or airless spray).
- Semi-thixotropic viscosity suitable for sloped surfaces.
- When applied forms seamless membrane without joints.
- Resistant to water and frost.
- Crack-bridging up to 2mm, even at -10ºC.
- Provides water vapor permeability, so the surface can breathe.
- Provides excellent thermal resistance, it never turns soft.
- Provides excellent weather and UV resistance.
- Waterproofs old bitumen-, asphalt felts by covering them, without the need to remove them prior to application.
- Provides high sun reflectivity, contributing to thermoinsulation.
- Maintains its mechanical properties over a temperature span of -40ºC to +90ºC.
- Provides excellent adhesion to almost any type of surface.
- The waterproofed surface can be used for domestic and public pedestrian and vehicular traffic.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Does not need the use of open flames (torch) during application.
- Over 15 years of positive feedback worldwide.

Uses

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Balconies, Auxiliary Rooms, etc
- Waterproofing of Pedestrian and Vehicular traffic Decks
- Waterproofing of Green Roofs, Flowerbeds, Planter Boxes
- Waterproofing of old Bitumen felts, Asphalt felts, EPDM and PVC membranes and old Acrylic coatings.
- Protection of Polyurethane Foam Insulation
- Waterproofing and protection of Concrete constructions like Bridge-Decks, Tunnels, Stadium Stands, Car Parks, etc.

Consumption

1,4 – 2,5 kg/m^2 applied in two or three layers.
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.
In case of MARISEAL FABRIC reinforcement, consumption increases.

Colors

The MARISEAL® 250 FLASH is supplied in white and light grey.
Other colors may be supplied on demand.

Certifications

TÜVRheinland® CERT ISO 9001

TÜVRheinland® CERT ISO 14001

The MARISEAL® 250 FLASH was tested by the German state testing institute for construction materials MPA-Braunschweig according the European Union Directive for liquid-applied roof waterproofing kits ETAG 005 and was found conforming.

CE

The MARISEAL® 250 FLASH was certified by the German state Institute for construction techniques DIBt–Berlin with the European Technical Assessment (ETA) and with the CE-mark and certification according to the EOTA (European Organization of Technical Approval). The European Technical Assessment (ETA) is valid for two levels of use (W2 and W3) depending on the applied thickness.

The MARISEAL® 250 FLASH was additionally tested and approved by various laboratories in different countries around the world.

CONSTRUCTION

European Technical Approval: ETA05/0197 DIBt
Levels of use categories according to ETAG005, for liquid-applied Polyurethane waterproofing kits:

Working life expected:	**W3**	**25 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P4**	**Very High (maximum load)**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL4	-30ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	≥ 50 kPa	EU Norm

Working life expected:	**W2**	**10 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P3**	**High**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL3	-20ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	≥ 50 kPa	EU Norm

Technical Data *

PROPERTY	**RESULTS**	**TEST METHOD**
Elongation at Break	> 900 %	ASTM D 412 / DIN 52455
Tensile Strength	> 4 N/ mm ^{2}	ASTM D 412 / DIN 52455
Water Vapor Permeability	> 25 gr/m^2/day	ISO 9932:91
Resistance to mechanical damage by static impression	High Resistance (class:P3)	EOTA TR-007
Resistance to mechanical damage by dynamic impression	High Resistance (class:P3)	EOTA TR-006
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>2,0 N/mm ^{2} (concrete surface failure)	ASTM D 903
Crack Bridging Capability	up to 2 mm crack	EOTA TR-008
Hardness (Shore A Scale)	65-70	ASTM D 2240 (15")
Resistance to Root Penetration	Resistant	UNE 53420
Solar Reflectance (SR)	0.87	ASTM E903-96
Solar Emittance (ε)	0.89	ASTM E408-71
Thermal Resistance (80ºC for 100 days)	Passed - No significant changes	EOTA TR-011
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Resistance after water aging	Passed	EOTA TR-012
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Construction Material Fire class	B2	DIN 4102-1
Resistance to Flying Sparks and Radiating Heat	Passed	DIN 4102-7
Service Temperature	-30ºC to +90ºC	Inhouse Lab
Shock Temperature (20min)	200ºC	Inhouse Lab
Rain Stability Time	3-4 hours	Conditions: 20ºC, 50% RH
Light Pedestrian Traffic Time	18-24 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	

Application

Surface Preparation
Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.
WARNING: Do not wash surface with water!

CONSTRUCTION

Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

- Clean concrete cracks and hairline cracks, of dust, residue or other contamination. Prime locally with the MARISEAL® 710 Primer and allow 2-3 hours to dry. Fill all prepared cracks with MARIFLEX® PU 30 sealant. Then apply a layer of MARISEAL® 250 FLASH, 200mm wide centered over all cracks and while wet, cover with a correct cut stripe of the MARISEAL® Fabric. Press it to soak. Then saturate the MARISEAL® Fabric with enough MARISEAL® 250 FLASH, until it is fully covered. Allow 12 hours to cure.
- Clean concrete expansion joints and control joints of dust, residue or other contamination. Widen and deepen joints (cut open) if necessary. The prepared movement joint should have a depth of 10-15 mm. The width:depth ratio of the movement joint should be at a rate of approx. 2:1.
  Apply some MARIFLEX® PU 30 Joint-Sealant on the bottom of the joint only. Then with a brush, apply a stripe layer of MARISEAL® 250 FLASH, 200mm wide centered over and inside the joint. Place the MARISEAL® Fabric over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough MARISEAL® 250 FLASH. Then place a polyethylene cord of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint with MARIFLEX® PU 30 sealant. Do not cover. Allow 12-18 hours to cure.

Priming

Prime very absorbent surfaces like concrete, cement screed or wood with MARISEAL® 710 or with MARISEAL® AQUA PRIMER. Prime surfaces like bitumen-, asphaltfelts with MARISEAL® 730 or with MARISEAL® AQUA PRIMER. Prime non-absorbent surfaces like metal, ceramic tiles and old coatings with MARISEAL® AQUA PRIMER or with MARISEAL 750.
Allow the primer to cure according its technical instruction.

Waterproofing membrane

Stir well before using. Poor the MARISEAL® 250 FLASH onto the prepared/primed surface and lay it out by roller, brush or squeegee, until all surface is covered. You can use airless spray allowing a considerable saving of manpower.
ATTENTION: Reinforce always with the MARISEAL® Fabric at problem areas, like wall-floor connections, 90º angles, chimneys, pipes, waterspouts (siphon), etc.
In order to do that, apply on the still wet MARISEAL® 250 FLASH a correct cut piece of MARISEAL® Fabric, press it to soak, and saturate again with enough MARISEAL® 250 FLASH. For detailed application instructions with the MARISEAL® Fabric, contact our R+D department. We recommend reinforcement of the entire surface, with the MARISEAL® Fabric. Use 5-10cm stripe overlapping.
After 12-18 hours (not later than 48 hours) apply another layer of the MARISEAL®250 FLASH.
For demanding applications, apply a third layer of the MARISEAL®250 FLASH.

ATTENTION: Do not apply the MARISEAL® 250 FLASH over 0.6 mm thickness (dry film) per layer. For best results, the temperature during application and cure should be between 5ºC and 35ºC. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

Finishing

If a color stable and chalking-free surface is desired, apply one or two layers of the MARISEAL® 400 Top-Coat over the MARISEAL® 250 FLASH. The application of the MARISEAL® 400, is especially required, if a dark final color, is desired.(e.g. red, grey, green)
If a heavy duty, abrasion resistant surface is desired (e.g. Public Pedestrian Deck, Car Parking, etc), apply two layers of the MARISEAL® 420 Top-Coat.
For the several Top-Coats application procedures, please consult their technical instructions or contact our R+D Department.

WARNING: The MARISEAL® 250 FLASH and/or the MARISEAL® SYSTEM is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

Packaging

MARISEAL® 250 FLASH is supplied in 25 kg, 15 kg, 6 kg, 1kg metal pails and 250kg Barrels. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5º-30ºC. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARISEAL® 250 FLASH contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet.
PROFESSIONAL USE ONLY

Maris Polymers®
POLYURETHANE SYSTEMS

MARISEAL® 250

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

CONSTRUCTION

Liquid-applied polyurethane waterproofing membrane

Product description

MARISEAL® 250 is a premium, liquid-applied, highly permanent elastic, cold applied and cold curing, one component polyurethane membrane used for long-lasting waterproofing.

The MARISEAL® 250 is based on pure elastomeric hydrophobic polyurethane resins, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Cures by reaction with ground and air moisture.

Advantages

- Simple application (roller or airless spray).
- When applied forms seamless membrane without joints.
- Resistant to water.
- Resistant to frost.
- Resistant to root penetration, so it can be used in green roofs.
- Crack-bridging up to 2mm, even at -10ºC.
- Provides water vapor permeability, so the surface can breathe.
- Provides excellent thermal resistance, it never turns soft.
- Provides excellent weather and UV resistance.
- Waterproofs old bitumen-, asphalt felts by covering them, without the need to remove them prior to application.
- Provides high sun reflectivity, contributing to thermoinsulation.
- Maintains its mechanical properties over a temperature span of -40ºC to +90ºC.
- Provides excellent adhesion to almost any type of surface.
- The waterproofed surface can be used for domestic and public pedestrian and vehicular traffic.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Does not need the use of open flames (torch) during application.
- Over 15 years of positive feedback worldwide.

Uses

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Balconies, Auxiliary Rooms, etc
- Waterproofing of Pedestrian and Vehicular traffic Decks
- Waterproofing of Green Roofs, Flowerbeds, Planter Boxes
- Waterproofing of old Bitumen felts, Asphalt felts, EPDM and PVC membranes and old Acrylic coatings.
- Protection of Polyurethane Foam Insulation
- Waterproofing and protection of Concrete constructions like Bridge-Decks, Tunnels, Stadium Stands, Car Parks, etc.

Consumption

1,4 – 2,5 kg/m^2 applied in two or three layers.
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.
In case of MARISEAL FABRIC reinforcement, consumption increases.

Colors

The MARISEAL® 250 is supplied in white and light grey.
Other colors may be supplied on demand.

Certifications

TÜVRheinland® CERT ISO 9001
TÜVRheinland® CERT ISO 14001

The MARISEAL® 250 was tested by the German state testing institute for construction materials MPA-Braunschweig according the European Union Directive for liquid-applied roof waterproofing kits ETAG 005 and was found conforming.

CE

The MARISEAL® 250 was certified by the German state Institute for construction techniques DIBt–Berlin with the European Technical Assessment (ETA) and with the CE-mark and certification according to the EOTA (European Organization of Technical Approval). The European Technical Assessment (ETA) is valid for two levels of use (W2 and W3) depending on the applied thickness.

The MARISEAL® 250 was additionally tested and approved by various laboratories in different countries around the world.

CONSTRUCTION

European Technical Approval: ETA05/0197 DIBt
Levels of use categories according to ETAG005, for liquid-applied Polyurethane waterproofing kits:

Working life expected:	**W3**	**25 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P4**	**Very High (maximum load)**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL4	-30ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	≥ 50 kPa	EU Norm

Working life expected:	**W2**	**10 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P3**	**High**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL3	-20ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E, Brooft4, DIN 4102-1, DIN 4102-7	EU Norm
Resistance to wind loads	≥ 50 kPa	EU Norm

Technical Data *

PROPERTY	**RESULTS**	**TEST METHOD**
Elongation at Break	> 900 %	ASTM D 412 / DIN 52455
Tensile Strength	> 4 N/ mm ^{2}	ASTM D 412 / DIN 52455
Water Vapor Permeability	> 25 gr/m^2/day	ISO 9932:91
Resistance to mechanical damage by static impression	High Resistance (class:P3)	EOTA TR-007
Resistance to mechanical damage by dynamic impression	High Resistance (class:P3)	EOTA TR-006
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>2,0 N/mm ^{2} (concrete surface failure)	ASTM D 903
Crack Bridging Capability	up to 2 mm crack	EOTA TR-008
Hardness (Shore A Scale)	65-70	ASTM D 2240 (15")
Resistance to Root Penetration	Resistant	UNE 53420
Solar Reflectance (SR)	0.87	ASTM E903-96
Solar Emittance (ε)	0.89	ASTM E408-71
Thermal Resistance (80ºC for 100 days)	Passed - No significant changes	EOTA TR-011
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Resistance after water aging	Passed	EOTA TR-012
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Construction Material Fire class	B2	DIN 4102-1
Resistance to Flying Sparks and Radiating Heat	Passed	DIN 4102-7
Service Temperature	-30ºC to +90ºC	Inhouse Lab
Shock Temperature (20min)	200ºC	Inhouse Lab
Rain Stability Time	3-4 hours	Conditions: 20ºC, 50% RH
Light Pedestrian Traffic Time	18-24 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	

Application

Surface Preparation
Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.
WARNING: Do not wash surface with water!

CONSTRUCTION

Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

- Clean concrete cracks and hairline cracks, of dust, residue or other contamination. Prime locally with the MARISEAL® 710 Primer and allow 2-3 hours to dry. Fill all prepared cracks with MARIFLEX® PU 30 sealant. Then apply a layer of MARISEAL® 250, 200mm wide centered over all cracks and while wet, cover with a correct cut stripe of the MARISEAL® Fabric. Press it to soak. Then saturate the MARISEAL® Fabric with enough MARISEAL® 250, until it is fully covered. Allow 12 hours to cure.
- Clean concrete expansion joints and control joints of dust, residue or other contamination. Widen and deepen joints (cut open) if necessary. The prepared movement joint should have a depth of 10-15 mm. The width:depth ratio of the movement joint should be at a rate of approx. 2:1.
  Apply some MARIFLEX® PU 30 Joint-Sealant on the bottom of the joint only. Then with a brush, apply a stripe layer of MARISEAL® 250, 200mm wide centered over and inside the joint. Place the MARISEAL® Fabric over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough MARISEAL® 250. Then place a polyethylene cord of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint with MARIFLEX® PU 30 sealant. Do not cover. Allow 12-18 hours to cure.

Priming

Prime very absorbent surfaces like concrete, cement screed or wood with MARISEAL® 710 or with MARISEAL® AQUA PRIMER. Prime surfaces like bitumen-, asphaltfelts with MARISEAL® 730 or with MARISEAL® AQUA PRIMER. Prime non-absorbent surfaces like metal, ceramic tiles and old coatings with MARISEAL® AQUA PRIMER or with MARISEAL 750.
Allow the primer to cure according its technical instruction.

Waterproofing membrane

Stir well before using. Poor the MARISEAL® 250 onto the prepared/primed surface and lay it out by roller, brush or squeegee, until all surface is covered. You can use airless spray allowing a considerable saving of manpower.

ATTENTION: Reinforce always with the MARISEAL® Fabric at problem areas, like wall-floor connections, 90º angles, chimneys, pipes, waterspouts (siphon), etc.
In order to do that, apply on the still wet MARISEAL® 250 a correct cut piece of MARISEAL® Fabric, press it to soak, and saturate again with enough MARISEAL® 250. For detailed application instructions with the MARISEAL® Fabric, contact our R+D department.
We recommend reinforcement of the entire surface, with the MARISEAL® Fabric. Use 5-10cm stripe overlapping.

After 12-18 hours (not later than 48 hours) apply another layer of the MARISEAL®250.
For demanding applications, apply a third layer of the MARISEAL®250.

ATTENTION: Do not apply the MARISEAL® 250 over 0.6 mm thickness (dry film) per layer. For best results, the temperature during application and cure should be between 5ºC and 35ºC. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

Finishing

If a color stable and chalking-free surface is desired, apply one or two layers of the MARISEAL® 400 Top-Coat over the MARISEAL® 250. The application of the MARISEAL® 400 Top-Coat, is especially required, if a dark final color, is desired. (e.g. red, grey, green)
If a heavy duty, abrasion resistant surface is desired (e.g. Public Pedestrian Deck, Car Parking, etc), apply two layers of the MARISEAL® 420 Top-Coat.
For the several Top-Coats application procedures, please consult their technical instructions or contact our R+D Department.

WARNING: The MARISEAL® 250 and/or the MARISEAL® SYSTEM is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

Packaging

MARISEAL® 250 is supplied in 25 kg, 15 kg, 6 kg, 1kg metal pails and 250 kg Barrels. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5º-30ºC. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARISEAL® 250 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

* All values represent typical values and are not part of the product specification. In sample preparation the MARISEAL KATALYSATOR was used as an acceleration additive. The applied coating might yellow and/or fade upon UV exposure.

Maris Polymers®
POLYURETHANE SYSTEMS

MARISEAL® 400

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

CONSTRUCTION

Aliphatic Polyurethane Top-Coat, UV-stable
Normal pedestrian traffic areas

Product description

The MARISEAL® 400 is a pigmented, color- and UV-stable, highly permanent elastic, cold applied and cold curing, one component aliphatic polyurethane coating, used as a top-coat for protection over exposed, polyurethane waterproofing coatings.
Cures by reaction with ground and air moisture over a unique moisture triggered chemical reaction.

Protects very efficiently, especially if a dark final color is desired.

Advantages

- Simple application (roller or airless spray).
- One component.
- Increases the abrasion and wear resistance of the waterproofing membrane underneath.
- Provides high sun reflectivity, contributing to thermoinsulation.
- UV and Color stable.
- Gives a glossy and easy-to-clean surface.
- Does not show the chalking effect of aromatic polyurethane coatings.
- Resistant to water, heat and frost.
- Maintains its mechanical properties over a temperature span of -40ºC to +90ºC.
- The waterproofed surface can be walked on (domestic pedestrian traffic).

Uses

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Waterproofing of Pedestrian Decks and Walkways
- Protection of Polyurethane Foam Insulation

Used over the MARISEAL® 250, 250FLASH, 250AQUA, 260, etc on surfaces, with normal pedestrian traffic (e.g. Roofs, Terraces, Balconies, etc) that require a glossy, color-stable and non-chalking finish.

Consumption

120-250 gr/m^2 in one or two layers.
This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required can alter consumption.

Colors

The MARISEAL® 400 is supplied in white, light grey and brown-red.
Other RAL colors may be supplied on demand.

Technical Data *

PROPERTY	RESULTS	TEST METHOD
Composition	Pigmented Aliphatic moisture triggered Polyurethane polymer. Solvent based	
Resistance to Water Pressure	No Leak	DIN EN 1928
Elongation at break	289%	DIN EN ISO 527
Tensile strength	3,72 N/mm^2	DIN EN ISO 527
Elongation at break after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	372 %	DIN EN ISO 527
Tensile strength after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	2,68 N/mm^2	DIN EN ISO 527
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	Good	DIN 67530
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m2)	**No chalking observed. Chalking grade 0**	DIN EN ISO 4628-6
Adhesion to the MARISEAL® 250	>2 N/mm ^{2}	ASTM D 903
Hardness (Shore A Scale)	65	ASTM D 2240 (15")
Solar Reflectance (SR) (white color)	93.5%	ASTM E903-96
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40ºC to +90ºC	Inhouse Lab
Tack Free Time	1-3 hours	Conditions: 20ºC, 50% RH
Light Pedestrian Traffic Time	12 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	

TÜVRheinland® CERT ISO 9001
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Maris Polymers®
POLYURETHANE SYSTEMS

CONSTRUCTION

Application

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

Waterproofing Membrane

See relevant MARIS POLYMERS product Technical Data Sheet

Top-Coat

Stir MARISEAL 400 well before using.
Apply the MARISEAL® 400 by roller, brush or airless spray in one or two layers.
Allow 3-6 hours (not more than 36 hours) to cure, between the two layers.

For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

WARNING: The MARISEAL® 400 and/or the MARISEAL® SYSTEM is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.
WARNING: If on the surface where the MARISEAL® system is applied, there are areas with ponding water, they should be cleaned on regular basis to avoid biological and microbial attack.

Packaging

MARISEAL® 400 is supplied in 20 kg, 10 kg and 5 kg metal pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARISEAL® 400 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

Maris Polymers®
POLYURETHANE SYSTEMS

CONSTRUCTION

MARISEAL® 710 AQUA

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

Polyurethane Primer, Water-based

Product description

The MARISEAL® 710 AQUA is a water-based, transparent, semi-rigid, deep penetrating, one component, quick drying polyurethane primer.
The MARISEAL® 710 AQUA consists of flexible, water-based polyurethane resins (dispersion).

Used as a primer in waterproofing applications on absorbent surfaces in combination with the MARISEAL® AQUA SYSTEM .

The MARISEAL® 710 AQUA is based on the innovative **PUD-Technology™** of MARIS POLYMERS SA.

Advantages

- Simple application (roller or airless spray).
- Water Based
- Quick drying
- Deep penetrating
- Excellent anchoring to absorbent surfaces.
- Heat and frost resistant
- Stops the creation of dust.
- Maintains its mechanical properties over a temperature span of -30ºC to +80ºC.
- Low VOC content <100 gr/l

Uses

The MARISEAL® 710 AQUA is used as a primer for the water-based polyurethane waterproofing system on absorbent surfaces like:

- Concrete
- Mortar
- Plaster
- Wood, etc.

The MARISEAL® 710 AQUA can be used in combination with the MARISEAL AQUA SYSTEM (MARISEAL®250 AQUA, MARISEAL® 400 AQUA, etc.)

Consumption

0,2 kg/m^2 applied in one or two layers.
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

Colors

The MARISEAL® 710 AQUA is supplied milky-transparent.

PUD Technology™: The Green revolution in Polyurethane

The MARISEAL® 710 AQUA is based on the innovative **PUD Technology™** of MARIS POLYMERS, which enables, long-chain polyurethane macromolecules to be incorparated in a water medium, forming stable dispersions.
The **PUD Technology™** based products, have the advantage that they offer the high level properties of solvent based products, in an ecological, consumer and evironmentally friendly, water-based, low VOC, no ADR transport product.
The **PUD Technology™** is the entry to the Green revolution in Polyurethane based products.

TÜVRheinland® CERT ISO 9001
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Technical data*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane pre-polymer dispersion.	
Adhesion to concrete	>1,5 N/mm^2	ASTM D 903
Hardness (SHORE A Scale)	>80	ASTM D 2240
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Service Temperature	-30^{0}C to +90^{0}C	Inhouse lab
Water Vapor Permeability	>15 gr/m^2/day	ISO 9932:91
Tack free time	90 min	Conditions: 20ºC, 50% RH
Overcoating time	3-4 hours	
Final Curing time	10 days	

Application

Maris Polymers®
POLYURETHANE SYSTEMS

CONSTRUCTION

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 6%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

WARNING: Do not use a metal-ball blasting machine to grind the surface, because the heavy metal-ball impacts destroy the cohesion of the concrete surface and lower its stability.

Priming

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperatures retard cure, while high temperature speed up curing. High humidity may affect the final finish.

Apply the MARISEAL® 710 AQUA by roller or brush, until the surface is covered. You can use airless spray allowing a considerable saving of manpower.
After 1-3 hours and while the primer is still a bit tacky, apply the water-based polyurethane coating.

RECOMMENDATION: If the surface is very brittle, like lightweight concrete or porous cement screed, apply two layers of the MARISEAL®710 AQUA.

Packaging

MARISEAL® 710 AQUA pails should be stored in dry and cool rooms for up to 18 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels. PROTECT FROM FROST.

Safety measures

Keep away from children. Do not use empty containers for food storage. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.

* All values represent typical values and are not part of the product specification. The applied primer might yellow and/or fade upon UV exposure.

Maris Polymers®
POLYURETHANE SYSTEMS

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

MARISEAL® 710

Polyurethane Primer, solvent based. Quick drying

CONSTRUCTION

Product description

MARISEAL® 710 is a transparent, rigid, deep penetrating, one component, quick drying polyurethane primer. Solvent-based.
Used as a primer in waterproofing and sealing applications on absorbent surfaces.

Cures by reaction with ground and air moisture.

Advantages

- Simple application (roller or brush).
- Quick drying.
- Deep penetrating
- Excellent anchoring to absorbent surfaces.
- Resistant to stagnating water.
- Provides high tensile and impact strength.
- Heat and frost resistant
- Stops the creation of dust.
- Chemical resistant.

Uses

The MARISEAL® 710 is mainly used as a primer for polyurethane waterproofing coatings and polyurethane joint sealants on absorbent surfaces like:

- Concrete
- Mortar
- Plaster
- Wood, etc.

Consumption

200 gr/m^2 in one layer.
This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required can alter consumption.

Colors

The MARISEAL® 710 is supplied brown-yellow transparent

Technical data*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane pre-polymer. Solvent based	
Adhesion to concrete	>1,8 N/mm^2 (concrete failure)	ASTM D 903
Hardness (SHORE A Scale)	>95	ASTM D 2240
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Service Temperature	-30^{0}C to +90^{0}C	Inhouse lab
Application Temperature	5^{0}C to 35^{0}C	Conditions: 20^{o}C, 50% RH
Tack free time	60 min	
Overcoating time	2-3 hours	
Final Curing time	7 days	

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Maris Polymers®
POLYURETHANE SYSTEMS

CONSTRUCTION

Application

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

WARNING: Do not wash surface with water!
WARNING: Do not use a metal-ball blasting machine to grind the surface, because the heavy metal-ball impacts destroy the cohesion of the concrete surface and lower its stability.

Priming

For best results, the temperature during application and cure should be between 5^{o}C and 35^{o}C. Low temperatures retard cure, while high temperature speed up curing. High humidity may affect the final finish.

Apply the MARISEAL® 710 by roller or brush, until the surface is covered. You can use airless spray allowing a considerable saving of manpower.
After 1-3 hours (not later than 4 hours) and while the primer is still a bit tacky, apply the polyurethane coating or the polyurethane joint sealant.

RECOMMENDATION: If the surface is very brittle, like lightweight concrete or high porous cement screed, apply two layers of the MARISEAL®710.

Packaging

MARISEAL® 710 is supplied in 17 kg, 10 kg, 5 kg and 1kg pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5^{0}-30^{0}C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARISEAL® 710 contains isocyanates. See information supplied by the manufacturer. Flammable. Please study the Safety Data sheet. PROFESSIONAL USE ONLY

Maris Polymers®
POLYURETHANE SYSTEMS

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

MARISEAL® AQUA PRIMER

Epoxy Primer, water based

CONSTRUCTION

Product description

MARISEAL® AQUA PRIMER is a transparent, rigid, two component epoxy primer. Water-based.
Used as a universal primer in waterproofing, sealing and floor coating applications on absorbent and non-absorbent surfaces.

Cures by reaction (cross linking) of the two components.

Advantages

- Simple application (roller or brush).
- Low Odor.
- Excellent anchoring to absorbent and non-absorbent surfaces.
- Can be applied on moist surfaces, without loss of adhesion.
- Resistant to stagnating water.
- Can be diluted with water.
- Provides high tensile and impact strength.
- Heat and frost resistant
- Stops the creation of dust.
- Chemical resistant.

Uses

The MARISEAL® AQUA PRIMER is mainly used as a primer for polyurethane waterproofing coatings, polyurethane joint sealants and polyurethane and epoxy floor coatings on non-absorbent surfaces like:

- Power floated concrete
- Metal (various)
- Asphalt
- Bitumenfelts
- Ceramic Tiles
- Glass
- Old Acryl-based coatings, etc.

It can also be used as a primer on absorbent surfaces like concrete, mortar, plaster, etc.
It can also be used on moist concrete surfaces.
It is also used as a tack-coat between coating layers it intercoating time intervals are overstepped.

Consumption

100 - 200 gr/m^2 in one or two layers.
This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required can alter consumption.

Colors

The MARISEAL® AQUA PRIMER is supplied milky yellow

Technical data*

PROPERTY	RESULTS	TEST METHOD
Composition	Epoxy resin + Hardener. Water based	
Mixing Ratio	A : B = 3 : 1	
Adhesion to aluminium	>2 N/mm^2	ASTM D 903
Adhesion to concrete	>1,8 N/mm^2 (concrete failure)	ASTM D 903
Hardness (SHORE A Scale)	>95	ASTM D 2240
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Service Temperature	-30^{0}C to +90^{0}C	Inhouse lab
Application Temperature	10^{0}C to 35^{0}C	Conditions: 20^{o}C, 50% RH
Pot Life	45-50 min	
Overcoating time	6-12 hours	
Final Curing time	7 days	

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Maris Polymers®
POLYURETHANE SYSTEMS

CONSTRUCTION

Application

Surface Preparation

Careful surface preparation is essential for optimum finish and durability.
The surface needs to be clean and sound, free of any contamination, which may harmfully affect the adhesion of the primer. Maximum moisture content should not exceed 7%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. Old coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

WARNING: Do not use a metal-ball blasting machine to grind the surface, because the heavy metal-ball impacts destroy the cohesion of the concrete surface and lower its stability.

Mixing

MARISEAL® AQUA-PRIMER Component A and Component B should be mixed by low speed mechanical stirrer, according to the stipulated mixing ratio, for about 3-5 min.
ATTENTION: The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

Dilute mixture with 15-25% of clean water, to regulate viscosity.

Priming

For best results, the temperature during application and cure should be between 5ºC and 35ºC. Low temperatures retard cure, while high temperature speed up curing. High humidity may affect the final finish.

Apply the MARISEAL® AQUA-PRIMER (diluted with clean water) by roller or brush, until the surface is covered.
After approx. 6-12 hours (not later than 24 hours) and while the primer is still a bit tacky, apply the polyurethane coating or the polyurethane joint-sealant.

RECOMMENDATION: If the surface is very brittle, like lightweight concrete or porous cement screed, apply two layers of the MARISEAL® AQUA PRIMER.
ATTENTION: Please ensure consumption within the Pot Life.

WARNING: Do not apply the MARISEAL® AQUA PRIMER, at ambient and ground temperatures under 10ºC.

Packaging

MARISEAL® AQUA PRIMER is supplied in 15+5kg and 3+1kg pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5º-30ºC. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARISEAL® AQUA PRIMER contains amines and epoxy resins. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.

* All values represent typical values and are not part of the product specification. The applied primer might yellow and/or fade upon UV exposure.

Maris Polymers®
POLYURETHANE SYSTEMS

MARIFLEX® PU 30

TECHNICAL DATA SHEET
Date: 01.06.2017 – Version 17

CONSTRUCTION

Low Modulus polyurethane Joint-Sealant
One component Mastic

Product description

The MARIFLEX® PU 30 is a thixotropic, permanent elastic, cold applied and cold curing, one component, low modulus polyurethane elastomer (mastic) used for chalking and joint-sealing.
Cures by reaction with ground and air moisture.

Advantages

- Simple application.
- UV and weathering resistant.
- Resistant to constant movement.
- Resistant to water, heat and frost.
- Maintain its mechanical properties over a temperature span of -30ºC to +90ºC
- Provides excellent adhesion to most construction materials
- Resistant to detergents, oils, fuels and seawater

Uses

The MARIFLEX® PU 30 is used for:
- Expansion & sealing joints in almost all building substrates
- Joint sealing of interior movement joints.
- Joint sealing of exterior movement joints.
- Crack filling mastic.
- Joints between wooden, metal, aluminium or PVC frames and masonry

Consumption

Consumption depends on volume of the joint or crack to be sealed.

Colors **

The MARIFLEX® PU 30 is supplied in white and light grey.
Other RAL colors may be supplied on demand.

Technical Data *

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane mastic (pre-polymer)	
Elongation at Break	600%	ISO 8339
Modulus of elasticity (at 100%)	0,20 N/ mm ^{2}	ISO 8339
Elastic recovery	> 70%	ISO 7389
Hardness (Shore A Scale)	20-25	DIN 53505, ASTM D 2240
Application Temperature	5^{0}C to 35^{0}C	Inhouse Lab
Skin formation time	15 min (at 23oC, 50%RH)	Inhouse Lab
Polymerized thickness after 24 hours	3mm (at 23oC, 50%RH)	Inhouse Lab
VOC content	<50 gr/l	Inhouse Lab
Resistance to flow at 23oC	≤3mm	ISO 7390
Resistance to flow at 50oC	≤3mm	ISO 7390
Chemical Properties	Good resistance against water, cleaning agents, and accidental spray with oils, hydrocarbons, acidic and basic solutions (10%). Due to the sensitivity of polyurethane to UV rays, light shades change color. This change in appearance does not modify their mechanical properties or leak tightness.	

TÜVRheinland® CERT ISO 9001
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CONSTRUCTION

Application

Surface Preparation

The surface needs to be clean, dry and sound, free of oils or any contamination, which may harmfully affect the adhesion of the mastic. Remove all loose material. Concrete surfaces must be dry and stable (at least 28 days). Moisture content should not exceed 5%.
Users must check that the mastic is compatible with the surface in terms of adhesiveness, staining and chemical compatibility (test a section first).

Making the joint:

Correctly size the joint. We recommend a width between 10 and 30 mm. The Width / depth ratio of the joint should be about 2:1.

Movement joint sealing for Roof waterproofing purposes:

Apply some MARIFLEX® PU 30 Joint-Sealant on the bottom of the joint only. Then with a brush, apply a stripe layer of MARISEAL® 250, 200mm wide centered over the joint. Place the MARISEAL® FABRIC over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough MARISEAL® 250. Then place a polyethylene cord of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint with MARIFLEX® PU 30 sealant and allow 12 hours to cure.

Priming

Priming is only necessary if adhesion test has shown poor adhesion. In this case prime absorbent surfaces, like concrete, screed and wood with MARISEAL® 710 primer. Prime non-absorbent surfaces like metal and ceramic tiles with MARISEAL® AQUA PRIMER.

Sealing

After the primer has dried, press a flexible, non-adhesive joint filler (polyethylene cord), in the joint. The joint filler should be free of holes to ensure that bubbles do not form in the joint.
Apply the MARIFLEX® PU 30 mastic with special pistol by hand or pneumatic guns (maximum required pressure : 3,5 kg).
When applying avoid air entrapment. Smooth with joint nail or putty knife. For a better finish, use protection strips.

For narrow joints, apply the mastic in one movement. For very wide joints, apply the mastic in three places: the first two on the edges of the joint and the third on the filler. Smooth out with soapy water. Press the mastic against the edges and the joint filler while taking care not to create air bubbles. Remove protection strips.

May be painted after polymerization is complete. Use acrylic or vinyl dispersion paints after testing a section.

Packaging

MARIFLEX® PU 30 is supplied in 310ml Cartridges and 600ml Aluminium Bags. Bags and Cartridges should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5^0-30^0C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

MARIFLEX® PU 30 contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.