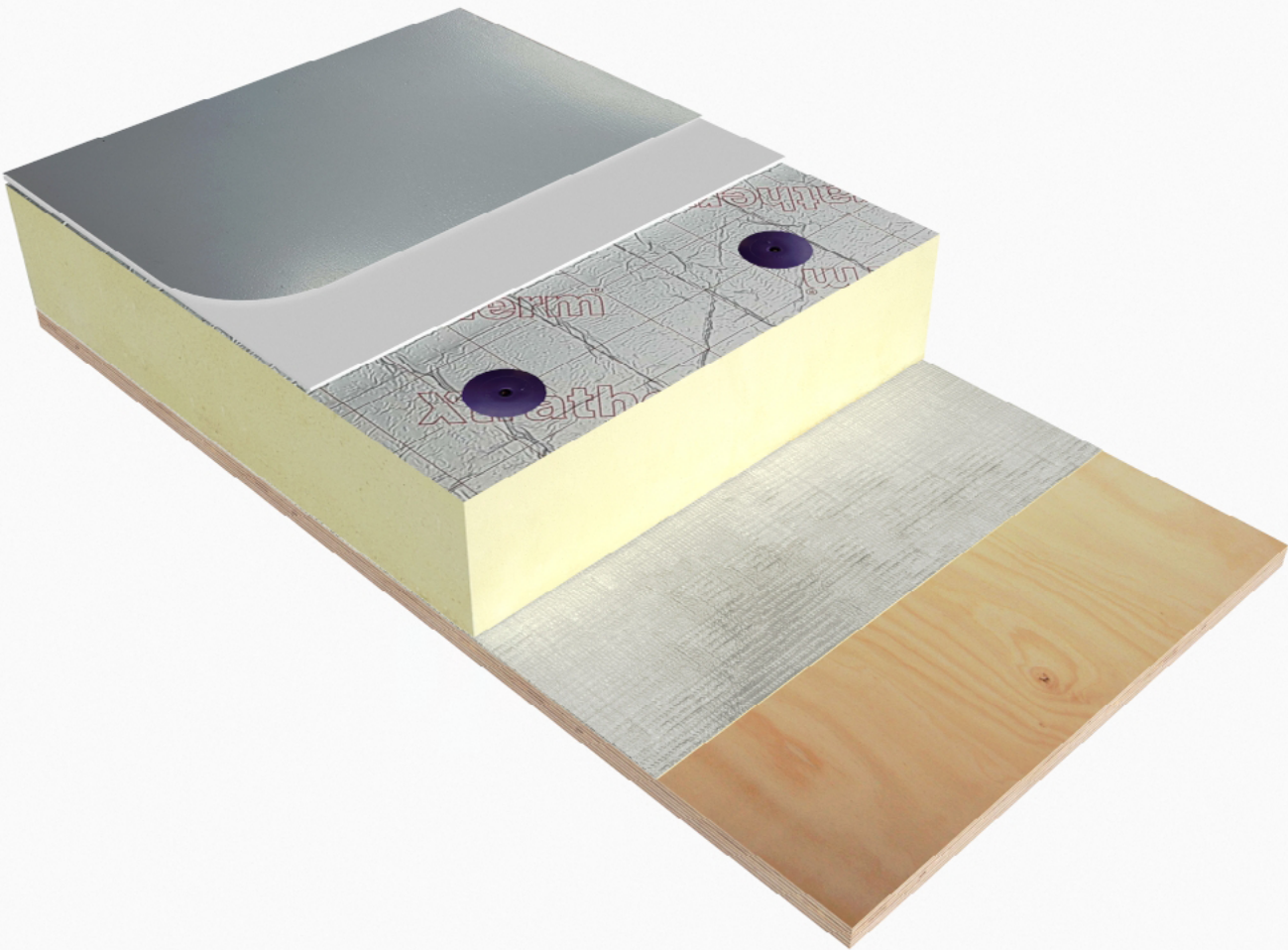


COLD APPLIED SYSTEMS

Technical Data Sheets



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Dura-Walk



Dura-Walk® Membrane

FEATURES AND BENEFITS

- Highly flexible
- Excellent crack-bridging properties even at extremely low temperature (-20°C)
- Easy to apply
- Very high impact and static puncture resistance
- Withstands limited stress and movements in the substrate
- Solvent free
- Application is possible even at temperatures from 0°C to +30°C
- Good adhesion between layers due to chemical bonding
- Quick application and curing times. Next layers can be applied within 1 hour

PRODUCT INFORMATION

DESCRIPTION

Dura-Walk Membrane is a medium viscous, urethane-modified system based on Methacrylate. To initiate curing, just add Dura-Walk Catalyst.

Dura-Walk Membrane is a liquid, easy to apply waterproofing membrane.

USAGE

Dura-Walk Membrane is designed as the waterproofing layer for balconies and walkways prior to the coloured top coat or other surface finishing. It can be used over concrete, wood or roofing grade mastic asphalt. Suitable primers, if necessary must be used.

PACKAGING

13 kg and 25 kg metal pails

NOTE

The processing time/pot life after adding the Dura-Walk Catalyst varies between 10 and 15 minutes, depending upon the temperature and the quantity of the Catalyst.

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	1.36 g/ml	ISO 2811
Viscosity at 25°C:	300-400 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516
Pot life at 20°C:	approx. 15 min.	
Curing time at 20°C:	approx. 60 min.	
Colour:	Light grey	

TECHNICAL CHARACTERISTICS (SOLID STATE)

Samples tested at +23°C

Tensile strength:	7.4 MPa	ISO 527
Elongation:	340 %	ISO 527
Abrasion 1000 cycles:	64 mg	ISO 7784-2
Modulus of elasticity:	88 MPa	ISO 527
Dynamic crack-bridging:	> 5 mm	BPG
Shore A hardness:	95	DIN 53505
Shore D hardness:	55	DIN 53505

Samples kept at -20°C for 24 hours prior to testing

Tensile strength:	7.8 MPa	ISO 527
Elongation:	310 %	ISO 527
Modulus of elasticity:	615 MPa	ISO 527
Dynamic crack-bridging:	> 5 mm	BPG

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The area to be waterproofed must be dry, free from dust, fats and oil and must be solid. Laitance and loose particles must be completely removed.

Before the application of Dura-Walk Membrane, a suitable primer must be applied.

For further details, see our Application Manual for Dura-Walk Balcony Systems.

Dura-Walk[®] Membrane

MIXING

Prior to use, Dura-Walk Membrane must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Walk Membrane is thoroughly mixed together with the Dura-Walk Catalyst in accordance with the below guidelines. It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Walk Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Walk Catalyst weighs 0.64 g
1 g of Dura-Walk Catalyst = 1.57 cm³

APPLICATION

Dura-Walk Membrane is applied using a toothed trowel or notched rubber squeegee.

The next step of the application depends on the system used (see our System Build-up Sheets).

CONSUMPTION

Please refer to the product build-up sheets or the bespoke Garland specification.

CLEANING

Clean tools immediately after use with Dura-Walk Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Walk Membrane.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Walk Membrane is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.

CE CERTIFICATION Dura-Walk Systems



Dura-Walk® Thix Membrane

FEATURES AND BENEFITS

- Highly flexible
- Excellent crack-bridging properties even at extremely low temperature (-20°C)
- Easy to apply
- Very high impact and static puncture resistance
- Withstands limited stress and movements in the substrate
- Solvent free
- Application is possible even at temperatures from 0°C to +30°C
- Good adhesion between layers due to chemical bonding
- Quick application and curing times. Next layers can be applied within 1 hour

PRODUCT INFORMATION

DESCRIPTION

Dura-Walk Thix Membrane is a high viscous, urethane-modified system based on Methacrylate. To initiate curing, just add Dura-Walk Catalyst.

Dura-Walk Thix Membrane is a thixotropic membrane for detail connections.

USAGE

Dura-Walk Thix Membrane is designed as the waterproofing layer for balconies and walkways prior to the coloured top coat or other surface finishing. It can be used over concrete, wood or roofing grade mastic asphalt. Suitable primers, if necessary must be used.

PACKAGING

5 kg and 25 kg metal pails

NOTE

The processing time/pot life after adding the Dura-Walk Catalyst varies between 10 and 15 minutes, depending upon the temperature and the quantity of the Catalyst.

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	1.36 g/ml	ISO 2811
Viscosity at 25°C:	4000 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516

Pot life at 20°C:	approx. 15 min.	
Curing time at 20°C:	approx. 60 min.	
Colour:	Light grey	

TECHNICAL CHARACTERISTICS (SOLID STATE)

Samples tested at +23°C

Tensile strength:	6.7 MPa	ISO 527
Elongation:	320 %	ISO 527
Abrasion 1000 cycles:	64 mg	ISO 7784-2
Modulus of elasticity:	65 MPa	ISO 527
Dynamic crack-bridging:	> 5 mm	BPG
Shore A hardness:	95	DIN 53505
Shore D hardness:	55	DIN 53505

Samples kept at -20°C for 24 hours prior to testing

Tensile strength:	7.1 MPa	ISO 527
Elongation:	340 %	ISO 527
Modulus of elasticity:	460 MPa	ISO 527
Dynamic crack-bridging:	> 5 mm	BPG

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The area to be waterproofed must be dry, free from dust, fats and oil and must be solid. Laitance and loose particles must be completely removed.

Before the application of Dura-Walk Thix Membrane, a suitable primer must be applied.

For further details, see our Application Manual for Dura-Walk Balcony Systems.

MIXING

Prior to use, Dura-Walk Thix Membrane must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Walk Thix Membrane is thoroughly mixed together with the Dura-Walk Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst

Dura-Walk[®] Thix Membrane

at 0°C add 6% by weight of catalyst
below 0°C add 6% by weight of catalyst and additionally
 add an accelerating agent, Dura-Walk
 Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Walk Catalyst weighs 0.64 g
1 g of Dura-Walk Catalyst = 1.57 cm³

APPLICATION

For wall connections, the following application method is recommended: Apply Dura-Walk Thix Membrane with a roller or a paintbrush. Embed reinforcement fabric in the wet layer, allow to cure and when fully cured apply a second layer of Dura-Walk Thix Membrane. This layer must be minimum 2 cm wider than the embedded fabric.

CONSUMPTION

Please refer to the product build-up sheets or the bespoke Garland specification.

CLEANING

Clean tools immediately after use with Dura-Walk Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.


Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Walk Thix Membrane.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Walk Thix Membrane is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.

CE CERTIFICATION


07
ETA-05/0238
Dura-Walk Systems



Dura-Walk® Coloured Topcoat

FEATURES AND BENEFITS

- Easy to apply
- Elastified
- Short curing time
- Weather resistant
- Available in different colours

PRODUCT INFORMATION

DESCRIPTION

Dura-Walk Coloured Topcoat is a low viscous, elastified, UV-resistant, 2 component reactive resin based on methyl methacrylate (MMA). To initiate curing, just add Dura-Walk Catalyst.

USAGE

Dura-Walk Coloured Topcoat is used as a coloured topcoat for the Dura-Walk uni-colour and coloured flake Balcony Systems.

PACKAGING

20 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	1.10 g/cm ³	ISO 2811
Viscosity at 25°C:	190-270 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516
Pot life at 20°C:	approx. 15 min.	
Curing time at 25°C:	approx. 60 min.	
Can be re-coated after:	approx. 90 min.	
Standard colours RAL:	1015, 7035, 7040, 9010	

More colours on request.

TECHNICAL CHARACTERISTICS (SOLID STATE)

Tensile strength:	7.9 MPa	ISO 527
Elongation:	110 %	ISO 527
E-modulus:	270 MPa	ISO 527

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The Dura-Walk membrane to be coated must be dry, clean, free from dust and grease. Any fresh base coat must be completely cured. For broadcast systems all loose aggregate must be thoroughly removed prior to applying the Dura-Walk Coloured Topcoat.

MIXING

Prior to use, Dura-Walk Clear Sealcoat must be stirred to achieve a uniform distribution of paraffin and pigments. Because of the short curing time, always mix small quantities of Dura-Walk Coloured Topcoat with the suitable amount of Catalyst. The volume of catalysed batch depends on the actual area size and application conditions whilst the amount of catalyst depends on the ambient temperature.

at 30°C	add 1.0% by weight of resin
at 20°C	add 1.5% by weight of resin
at 10°C	add 3.0% by weight of resin
at 0°C	add 4.0% by weight of resin
at -10°C	add 5.0% by weight of resin and additionally add Dura-Walk Accelerator, which is an accelerating agent.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Walk Catalyst weighs 0.64 g
1 g of Dura-Walk Catalyst = 1.57 cm³

APPLICATION

Immediately after the catalyst has been added and mixed, the Coloured Topcoat is poured onto the Dura-Walk Membrane in stripes and distributed with a paint roller. Consumption: 0.5 – 0.7 kg/m² depending upon the System (Uni or coloured flake).

When the ambient temperature is above 25°C and the area onto which the product is to be applied is in direct sunshine, either wait until that area is in shade, or create artificial shade to cover the area before applying the product.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn

Dura-Walk[®] Coloured Topcoat

during mixing and application of Dura-Walk Coloured Topcoat.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Walk Coloured Topcoat is highly flammable; keep away from heat and all sources of ignition and do not smoke. The mechanical mixer as well as all the other electric appliances used on the application site must be explosion proof versions.

STANDARD COLOURS



RAL 1014

RAL 1015



RAL 7001

RAL 7005



RAL 7023

RAL 7030



RAL 7032

RAL 7035



RAL 7040

RAL 9010



RAL 7015



Dura-Walk[®] Clear Sealcoat

FEATURES AND BENEFITS

- Easy to apply
- Excellent flow properties
- Short curing time
- Weather resistant
- For outdoor and indoor use
- Good chemical and mechanical resistance

PRODUCT INFORMATION

DESCRIPTION

Dura-Walk Clear Sealcoat is a low viscous, U.V. resistant blue-violet surface sealer based on acrylic resins. The curing is initiated by addition of Dura-Walk Catalyst. After polymerization the blue-violet colouring is no longer visible.

USAGE

Dura-Walk Clear Sealcoat is used as a surface sealer for Dura-Walk Balcony systems to improve general resistance and maintenance properties.

PACKAGING

5 kg and 20 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	0.99 g/cm ³	ISO 2811
Viscosity at 25°C:	70-90 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516
Pot life at 20°C	approx. 15 min.	
Curing time at 20°C	approx. 30 min.	

TECHNICAL CHARACTERISTICS (SOLID STATE)

Tensile strength:	14.7 N/mm ²	ISO 527
Elongation at max. strength:	0.7 %	
Elongation at fracture:	0.7 %	
Modulus of elasticity:	2620 N/mm ²	
Density at 20°C:	1.16 g/cm ³	ISO 1183

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The Dura-Walk system to be sealed must be dry, clean, free from dust and grease. Any fresh base coat must be completely cured. For broadcast systems all loose aggregate or flakes must be thoroughly removed prior to applying the Dura-Walk Clear Sealcoat.

MIXING

Prior to use, Dura-Walk Clear Sealcoat must be stirred to achieve a uniform distribution of paraffin and eventual pigments added to the sealer. To initiate curing Dura-Walk Catalyst shall be added to suitable volumes of product and carefully mixed. The volume of catalysed batch depends on the actual area size and application conditions whilst the amount of catalyst depends on the ambient temperature.

at 30°C	add 1.0% by weight of resin
at 20°C	add 1.5% by weight of resin
at 10°C	add 3.0% by weight of resin
at 0°C	add 4.0% by weight of resin
below 0°C	add 5% by weight of resin and additionally add Dura-Walk Accelerator, which is an accelerating agent.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Walk Catalyst weighs 0.64 g
1 g of Dura-Walk Catalyst = 1.57 cm³

APPLICATION

Immediately after the catalyst has been added and mixed, the sealer is poured onto the Dura-Walk membrane system in stripes (do not apply directly out of the mixing pails) and distributed using a rubber squeegee and paint roller.

On broadcast systems, the sealcoat can be spread out by a toothrake before using a roller. Consumption of Dura-Walk Clear Sealcoat depends on the substrate structure and varies from 0.3 to 0.8 kg/m². Please consult the Dura-Walk build ups (maximum 0.4 kg/m² per layer, if a thicker layer is required it must be applied in 2 separate coats). For good results it is important always to work with freshly catalysed material i.e. small batch sizes.

When the ambient temperature is above 25°C and the area onto which the product is to be applied is in direct sunshine, either wait until that area is in shade, or create artificial shade to cover the area before applying the product.

Dura-Walk[®] Clear Sealcoat

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Walk Clear Sealcoat.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Walk Clear Sealcoat is highly flammable; keep away from heat and all sources of ignition and do not smoke. The mechanical mixer as well as all the other electric appliances used on the application site must be explosion proof versions.



Dura-Coat



Dura-Coat® Membrane

FEATURES AND BENEFITS

Unique PUMA technology with the highest elasticity and crack bridging of PU and rapidity of MMA
 100% waterproof and UV protected
 Very fast curing; 30 minutes at +15°C
 Highest resistance at extremely low and high temperatures
 No primer needed on most roof surfaces
 Possibility to apply at very low temperatures (0°C)
 Cold applied
 High vapour permeability
 Resistant to plant roots

PRODUCT INFORMATION

DESCRIPTION

Dura-Coat is a heavy duty waterproofing system based polyurethane modified methacrylates.

USAGE

Dura-Coat is ideal for the repair, renovation and waterproofing of roof systems. Dura-Coat can also be used for the waterproofing of construction details.

REMARKS

The pot life after the mixing of Dura-Systems Catalyst is 10 to 15 minutes depending on the ambient temperature and the amount of Dura-Systems Catalyst used.

NOTE

The processing time/pot life after adding the Dura-Walk Catalyst varies between 10 and 15 minutes, depending upon the temperature and the quantity of the Catalyst.

PACKAGING

25kg Dura-Coat Membrane
 TECHNICAL INFORMATION

Technical characteristics (liquid state)

Density:	1.36 g/ml
Solids:	100%
Consumption:	2.8 kg/m ² in 2 layers to obtain 2 mm
Pot life (15°C to 20°C):	± 15 minutes
Curing time (15°C, 50% R.H.):	± 30 minutes
Rain resistant:	± 20 minutes
Application temperatures:	From 0°C to +30°C

Technical characteristics (cured state)

	Not aged	After 200 days, 80°C	After 1000 MJ/m ² UV radiation
E-Modulus ISO 527 Mpa:	23.7	26.3	33.7
Tensile strength MPa:	10.7	11.0	8.07
Elongation %:	283	263	225

Reaction to fire (EN 13501-1 and DIN ENV 1187-1):

Euroclass E

Resistance tested to:

ETAG 005 highest 4 scores obtained

Dynamic indentation:	X
Static indentation:	X
Low temperatures:	X
Extremely low temperatures:	X
High temperatures:	X
UV radiation:	X
Water ageing:	X
Plant roots:	X

Other data is available on demand

USAGE GUIDELINES

SUBSTRATE PREPARATION

The area to be waterproofed must be dry, clean, free from contamination and free of dirt, grease, oil and other elements which could prevent good adhesion to the substrate. Make sure that the surface permits apply a dry film thickness of Dura-Coat of minimum 2mm.

No primer needed on metal, asphalt, PVC and most bitumen felt. For concrete, wood and cement substrates, apply suitable primer before the application of Dura-Coat

MIXING

Prior to use, Dura-Coat Membrane must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Coat Membrane is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 15°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst

Dura-Coat[®] Membrane

at 0°C add 6% by weight of catalyst
below 0°C add 6% by weight of catalyst and additionally
 add an accelerating agent, Dura-Systems
 Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

Dura-Coat Membrane is applied using a notched trowel or squeegee.

The next step of the application depends on the system used (see our System Build-up Sheets).

CONSUMPTION

Consumption: ± 2.8 kg/m² for the 2 layers.
Apply 1.2 kg/m² Dura-Coat Membrane in the wet coating, bed in grip polyester fabric and apply a second layer wet in wet of 1.6 kg/m² Dura-Coat Membrane at least 50mm wider than the fabric.
Let cure and when fully cured apply Dura-Coat coloured Topcoat

Please refer to the product build-up sheets or the bespoke Garland specification issued by your Garland representative.

CLEANING

Clean tools immediately after use with Dura-Systems Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15-20°C.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Coat Membrane.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Coat Membrane is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.



Dura-Coat® Thix Membrane

FEATURES AND BENEFITS

- Unique PUMA technology with the highest elasticity and crack bridging of PU and rapidity of MMA
- 100% waterproof and UV protected
- Very fast curing; 30 minutes at $\pm 12^{\circ}\text{C}$
- High resistance at extremely low and high temperatures
- No primer needed on most roof surfaces
- Possibility to apply at very low temperatures (0°C)
- Cold applied
- High vapour permeability
- Resistant to plant roots

PRODUCT INFORMATION

DESCRIPTION

Dura-Coat Thix Membrane is a high viscous, preformulated resin based on PU modified methacrylates. To initiate curing, just add Dura-Systems Catalyst

Dura-Coat Thix Membrane is easy to apply, highly elastomeric thixotropic resin for detail connections

PACKAGING

25 kg metal pails

NOTE

The processing time/pot life after adding the Dura-Walk Catalyst varies between 10 and 15 minutes, depending upon the temperature and the quantity of the Catalyst.

TECHNICAL INFORMATION

Density:	1.36 g/ml
Solids:	100%
Consumption:	2.8 kg/m ² in 2 layers to obtain 2 mm
Pot life (15°C to 20°C):	± 15 minutes
Curing time: (+15°C, 50% rel. humidity)	± 30 minutes
Rain resistant:	± 20 minutes
Application temperatures:	From 0°C to $+30^{\circ}\text{C}$

USAGE GUIDELINES

SUBSTRATE PREPARATION

The area to be waterproofed must be dry, clean, free from contamination and free of dirt, grease, oil and other elements which could prevent good adhesion to the substrate.

No primer needed on asphalt, PVS and most bitumen felt. For concrete, metal, wood and cement substrates, apply suitable primer before the application of Dura-Coat Thix Membrane.

Metal parts should be without any rust. Bubbles and imperfections are to be repaired according to good roof practice.

MIXING

Prior to use, Dura-Coat Thix Membrane must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Coat Thix Membrane is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Systems Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

For vertical connections, the following application method is recommended: Apply Dura-Coat Thix Membrane with a roller or a paintbrush. Embed Dura-Systems Fabric in the wet layer and apply a second layer of Dura-Coat Thix Membrane in wet (± 2.8 kg/m² for the 2 layers). This layer must be minimum 50mm wider than the embedded fabric.

Let cure and when fully cured apply Dura-Coat Topcoat.

CONSUMPTION

Please refer to the product build-up sheets or the bespoke Garland specification issued by your Garland representative.

Dura-Coat[®] Thix Membrane



CLEANING

Clean tools immediately after use with Dura-Systems Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Coat Thix Membrane.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Coat Thix Membrane is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.



Dura-Coat® Coloured Topcoat

FEATURES AND BENEFITS

- Easy to apply
- Elastified
- Short curing time
- Weather resistant
- Available in different colours

PRODUCT INFORMATION

DESCRIPTION

Dura-Coat Coloured Topcoat is a low viscous, elastified, UV-resistant, 2 component reactive resin based on methyl methacrylate (MMA). To initiate curing, just add Dura-Systems Catalyst.

USAGE

Dura-Coat Coloured Topcoat is used as a coloured topcoat for the Dura-Coat system.

PACKAGING

20 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density (ISO 2811), 25°C	1.10 g/ml
Viscosity (DIN 53018), 25°C	190-270 mPa
Potlife / processing time at 20°C	± 15 min.
Curing time at 25°C	± 60 min.
Can be recoated after	± 90 min.
Flash Point (ISO 1516)	± 11.5 °C
Standard colours RAL	7001, 7015

More colours on request.

TECHNICAL CHARACTERISTICS (SOLID STATE)

Tensile strength (ISO 527)	7.9 MPa
Elongation (ISO 527)	110 %
E-Modulus (ISO 527)	270 MPa

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The Dura-Coat that must be coated, must be dry, free of dust and fat.

MIXING

Prior to use, Dura-Coat Coloured Topcoat must be stirred to achieve a uniform distribution of paraffin. Because of the short curing time, always mix small quantities of Dura-Coat Coloured Topcoat with the suitable amount of Catalyst.

The volume of catalysed batch depends on the actual area size and application conditions whilst the amount of catalyst depends on the ambient temperature.

at 30°C	add 1.0% by weight of resin
at 20°C	add 1.5% by weight of resin
at 10°C	add 3.0% by weight of resin
at 0°C	add 4.0% by weight of resin
at -10°C	add 5.0% by weight of resin and additionally add Dura-Systems Accelerator, which is an accelerating agent.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.

1 cm³ of Dura-Systems Catalyst weighs 0.64 g

1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

Immediately after the catalyst has been added and mixed, the Coloured Topcoat is poured onto the Dura-Coat Membrane in stripes and distributed with a paint roller. Consumption: 0.5 – 0.7 kg/m².

When the ambient temperature is above 25°C and the area onto which the product is to be applied is in direct sunshine, either wait until that area is in shade, or create artificial shade to cover the area before applying the product.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Coat Coloured Topcoat.

Dura-Coat[®] Coloured Topcoat

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Coat Coloured Topcoat is highly flammable; keep away from heat and all sources of ignition and do not smoke. The mechanical mixer as well as all the other electric appliances used on the application site must be explosion proof versions.

STANDARD COLOURS



RAL 7001

RAL 7015



Dura-Park





Dura-Park® Membrane

FEATURES AND BENEFITS

- Highly flexible with excellent crack-bridging characteristics even at extremely low temperatures (-30°C and below)
- Easy to apply using a trowel or a squeegee
- Can be applied to vertical surfaces by addition of thixotropic additive
- Excellent waterproofing properties
- Very high impact and puncture resistance
- Withstands stress and movement in the substrate
- Excellent adhesion to many types of substrate
- Good chemical and abrasion resistance
- Can be applied over a wide range of ambient and substrate temperatures (-10°C to +35°C)
- Can easily be repaired; excellent inter-layer adhesion due to chemical bonding
- Short curing time

PRODUCT INFORMATION

DESCRIPTION

Dura-Park Membrane is a medium viscosity, urethane modified, pre-recreated 100% solid system based on acrylic monomers. To initiate curing, just add Dura-Systems Catalyst.

USAGE

Dura-Park Membrane is designed as a liquid applied, low modulus waterproofing and coating. Can also be used as joint filler for joints with low dynamic movements.

The cured product is a very flexible crack-bridging membrane that retains its flexibility and crack-bridging performance in service even when the temperature reaches -30°C

The domains of application for Dura-Park Membrane include the waterproofing of vehicular trafficked areas, car parks, ramps ect.

Dura-Park Membrane can be applied at a whole range of temperatures (-10°C to +35°C) onto cementitious based screeds, concrete, filled bitumen/asphalt, metal, ceramic tile and wood substrates.

PACKAGING

25kg Units.

TECHNICAL INFORMATION

Technical characteristics (liquid state)

Viscosity @ 25°C:	300-700 mPa	DIN 53019
Density @ 25°C:	1.23 g/ml	EN ISO 2811
Pot life / processing time at 20°C:	approx. 15 min.	Internal Method
Curing time at 20°C	approx. 60 min.	Internal Method
Flash point:	+ 11.5°C	EN ISO 1516

Samples tested at 20°C

Shore A hardness:	71	EN ISO 868
Shore D hardness	18	EN ISO 868
Tensile strength:	6.83 MPa	EN ISO 527
Elongation at maximum strength:	395%	EN ISO 527
Elongation at rupture:	395%	EN ISO 527
Modulus of elasticity:	18.6 MPa	EN ISO 527

Samples tested at -20oC

Tensile strength:	20.9 MPa	EN ISO 527
Elongation at maximum strength:	365%	EN ISO 527
Elongation at rupture:	365%	EN ISO 527
Modulus of elasticity:	209 MPa	EN ISO 527
Static crack-bridging:	5.3mm	EN 1062-7

Please note that an objective comparison with other data is only possible if the norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The area to be waterproofed must be dry, firm, solid and free of dust, fat and oil. Laitance and loose particles must be removed thoroughly, e.g. By shot blasting. Fats or oils as well as humidity can be removed by flame blasting for example.

Before the application of the Dura-Park Membrane a suitable Dura-Systems Primer, including sanding when appropriate, must first be applied.

Dura-Park[®] Membrane

MIXING

Prior to use, Dura-Park Membrane must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Park Membrane is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Systems Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

Dura-Park Membrane is designed to be manually applied using a trowel or squeegee.

CONSUMPTION

For the consumption of the product per m²; please see the consult the bespoke Garland specification.

Per layer of membrane; a minimum thickness of 1mm (1.23 kg/m²) should always be applied

Please refer to the product build-up sheets or the bespoke Garland specification issued by your Garland representative.

CLEANING

Clean tools immediately after use with Dura-Systems Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15-20°C.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Park Membrane.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Park Membrane is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.



Dura-Park® Thix Membrane

FEATURES AND BENEFITS

- Highly flexible with excellent crack-bridging characteristics even at extremely low temperatures (-20°C and below)
- Easy to apply
- 100% waterproof
- Very high impact and puncture resistant
- Withstands stress and movement in the substrate
- Excellent adhesion to many types of substrate
- Good chemical and abrasion resistance
- Can easily be repaired; excellent inter-layer adhesion due to chemical bonding
- Overcoating time not critical
- Fully cured one hour after application

PRODUCT INFORMATION

DESCRIPTION

Dura-Park Membrane Thix is a viscous, urethane-modified, prereacted 100% solid membrane system based on acrylic monomers.

To initiate curing, just add Dura-Systems Catalyst.

PACKAGING

5 kg and 25 kg metal pails

USAGE

Dura-Park Membrane Thix is designed as a simple to apply, highly elastomeric liquid waterproofing membrane and coating, for vertical and inclined substrates.

The cured product is a very flexible crack-bridging membrane that retains its flexibility and crack-bridging performance in service even when the temperature reaches -20°C.

Samples kept at -20°C for 24 hours before testing

Tensile strength:	7.1 Mpa	ISO 527
Elongation:	340%	ISO 527

The domains of application for Dura-Park Membrane Thix include the waterproofing of Vehicular trafficked areas, Car Parks, Ramps, etc. Dura-Park Membrane Thix can be applied at a whole range of ambient and substrate temperatures (-10°C to +35°C) onto cementitious based screeds, concrete, filled bitu-men/asphalt, metal, ceramic tile and wood substrates.

TECHNICAL INFORMATION

Technical characteristics (liquid state)

Viscosity @ 25°C:	4000 mPa	DIN 53018
Density @ 25°C:	1.36 g/ml	ISO 2811
Pot life / processing time at 20°C:	approx. 15 min.	
Curing time at 20°C:	approx. 60 min.	
Flash Point:	+ 11.5 °C	ISO 1516

Technical characteristics (cured state)

Samples tested at 20°C

Shore A hardness	>85 IRHD	NFP 98285
Shore D hardness	55	DIN 53505
Tensile strength:	6.7 MPa	ISO 527
Elongation:	320%	ISO 527
Modulus elasticity:	65 Mpa	ISO 527
Abrasion 1000 cycles:	64 mg	ISO 7784-2
Dynamic crack-bridging:	> 5mm	BPG
Modulus of elasticity:	460 MPa	ISO 527
Dynamic crack-bridging:	> 5mm	BPG

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

Substrate Preparation

The area to be waterproofed must be dry, firm, solid and free of dust, fat and oil. Laitance and loose particles must be removed thoroughly, e.g. by shot blasting. Fats or oils as well as humidity can be removed by flame blasting for example.

Before the application of the Dura-Park Membrane Thix, a suitable Dura-Systems Primer, including sanding when appropriate, must be first applied.

Dura-Park[®] Thix Membrane

MIXING

Prior to use, Dura-Park Membrane Thix must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Park Membrane Thix is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Systems Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

Dura-Park Membrane Thix is designed to be manually applied using a brush or squeegee.

CONSUMPTION

Please refer to the product build-up sheets or the bespoke Garland specification issued by your Garland representative.

Per layer of membrane; a minimum thickness of 1 mm (= 1.36 kg/m²) should always be applied.

CLEANING

Clean tools immediately after use with Dura-Systems Cleaner.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Park Membrane Thix.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Park Membrane Thix is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.



Dura-Park® Pigmented Topcoat

FEATURES AND BENEFITS

- Low Viscosity
- Easy to apply
- Fast curing
- Wear resistant
- UV resistant
- Acid rain resistant

PRODUCT INFORMATION

DESCRIPTION

Dura-Park Pigmented Topcoat is a low viscous, elastified, UV-resistant, blue-violet, 2 component reactive resin based on methyl methacrylate (MMA). After polymerisation the blue-violet colouring is no longer visible.

USAGE

Dura-Park Pigmented Topcoat is used as a wear resistant surface sealer for Dura-Park waterproofing systems.

PACKAGING

20 kg metal pails

NOTE

If exposed to standing water for longer periods a whitening discoloration may occur.

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Viscosity @ 25°C:	160 - 200 mPa	DIN 53214
Density @ 25°C:	0.98 g/ml	DIN 51757
Pot life / processing time at 20°C:	approx. 15 min.	
Curing time @ 20°C:	approx. 30 min.	
Flash Point:	+ 11.5°C	ISO 1516

TECHNICAL CHARACTERISTICS (CURED STATE)

Tensile strength:	13.4 N/mm ²	DIN 53455
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Elongation at maximum strength:	14.8%	
Elongation at fracture:	15.5 %	
Modulus of elasticity:	696 N/mm ²	
Density @ 20°C	1.17 g/cm ³	DIN 53479

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The Dura-Park system to be sealed must be dry, clean, free of dust and fat. Any fresh Dura-Park system must be completely cured and cooled down. As a general principle all Dura-Park systems can be resealed with the same Dura-Park Pigmented Topcoat without any difficulty.

MIXING

Prior to use, Dura-Park Pigmented Topcoat must be stirred to achieve a uniform distribution of paraffin. Dura-Park Pigmented Topcoat is thoroughly mixed together with the Dura-Systems Catalyst in accordance to the following guidelines.

The volume of catalysed batch depends on the actual area size and application conditions whilst the amount of catalyst depends on the ambient temperature.

at 30°C	add 1.0% by weight of resin
at 20°C	add 1.5% by weight of resin
at 10°C	add 3.0% by weight of resin
at 0°C	add 4.0% by weight of resin
at -10°C	add 5.0% by weight of resin and additionally add Dura-Systems Accelerator, which is an accelerating agent.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

Dura-Park[®] Pigmented Topcoat

A compatible pigment powder can be used to colour the Dura-Park Pigmented Topcoat. Please contact our Technical Service Department for details. Immediately after the catalyst has been stirred in, the sealer is poured in stripes (do not apply directly out of the mixing pails) and distributed with a notched rubber squeegee or with a short-pile paint roller. It is important to work with freshly mixed material, i.e. to catalyze smaller batches; with a maximum consumption per layer of 0.5 kg/m².

If a thicker layer is required it must be applied in two separate coats.

Consumption of Dura-Park Pigmented Topcoat is between 0.3 and 0.8 kg/m² depending on the Dura-Park system onto which it is applied.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Park Pigmented Topcoat.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Dura-Park Pigmented Topcoat is highly flammable; keep away from heat and all sources of ignition and do not smoke. The mechanical mixer as well as all the other electric appliances used on the application site must be explosion proof versions.



Dura-Systems





Dura-Systems® Catalyst

PRODUCT INFORMATION

DESCRIPTION

Dura-Systems Catalyst is an odourless, free flowing, white powder consisting of stabilized 50 % dibenzoyl peroxide.

USAGE

Dura-Systems Catalyst is mixed with Dura-Systems reactive resin to initiate polymerization.

CONSUMPTION

Consumption of Dura-Systems Catalyst depends on the temperatures at which the Dura-Systems reactive resins are being applied. See separate individual Technical Data Sheets for the recommended quantities.

If no accurate scales is available at the application site, calculate the quantity in grammes and convert the results into cm³ using a powder density of 0.64 g/cm³. The required amount of Catalyst can then be measured using a measuring beaker:

1 cm³ Dura-Systems Catalyst = 0.64 g
1 g Dura-Systems Catalyst = 1.57 cm³

PACKAGING

25 kg boxes

TECHNICAL INFORMATION

Melting / distortion temperature:	> 54°C
Powder density:	640 kg/m ³
Solubility in water at 20°C:	not soluble
Solubility in organic solvents:	highly soluble
Thermal decomposition:	> 60°C

USAGE GUIDELINES

APPLICATION

Depending on the Dura-Systems reactive resin type and prevailing ambient substrate temperatures, between 1 and 6 % by weight of resin should be added and mixed until completely dissolved.

To delay or accelerate polymerization, additives can be used. These can be obtained upon request. Such additives are necessary when application is done at temperatures above +30°C or below 0°C.

All accelerator and inhibiting agents, pigments powders, colour pastes and thixotropic agents should be mixed with the resin before the Catalyst is added. Fillers are added after the Dura-Systems Catalyst and mixed in. For further details, see our Installation Manual for Dura-Walk Balcony Systems.

STORAGE

Store in a cool dry place and in original packaging. Maximum storage temperature is +25°C.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.



Dura-Systems® Cleaner

PRODUCT INFORMATION

DESCRIPTION

Dura-Systems Cleaner is a clear, colourless liquid based on methyl methacrylate (MMA).

USAGE

Dura-Systems Cleaner is an excellent agent for the cleaning of application tools.

PACKAGING

5 kg and 10 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 20°C:	0.94 g/cm ³	ISO 2811
Viscosity at 20°C:	< 1 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516

USAGE GUIDELINES

Dura-Systems Cleaner can be reused several times. It must be stored and transported in well closed original containers. If it is heavily soiled with remainders of resin and catalyst, Dura-Systems Cleaner may form a deposit or flakes, whose volume is increased by storage at high temperatures. In such cases Dura-Systems Cleaner must be disposed of and replaced by fresh material. Dura-Systems Cleaner must be disposed of as solid matter. To achieve this, add 10% of Dura-Systems Cleaner to any uncured and remaining resins and leave to cure.

STORAGE

Store in a cool dry place and in original packaging. Optimal storage temperature is between 15 - 20°C.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.



Dura-Systems® Concrete Primer

FEATURES AND BENEFITS

- Excellent adhesion to most common substrates
- Fast and safe curing even at low temperatures
- Provides good adhesion to subsequent coats

PRODUCT INFORMATION

DESCRIPTION

Dura-Systems Concrete Primer is a low viscosity, colourless, 2 component reactive resin based on methyl methacrylate (MMA).

USAGE

Dura-Systems Concrete Primer is used as a general prime coat for Dura-Systems Coatings. It is normally used as supplied but may be thinned with Dura-Systems Thinner to increase the penetration into certain types of cementitious substrates. For ceramic and common metal substrates we recommend the use of Dura-Systems Tile Primer as a primer.

For information on above products please see the respective Data Sheets.

We strongly recommend with all Dura-Systems primers that curing and adhesion tests are conducted on the particular substrate prior to general use on site.

PACKAGING

20 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	0.99 g/ml	ISO 2811
Viscosity at 25°C:	100-130 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516
Pot life at 20°C:	approx. 15 min.	
Curing time at 20°C:	approx. 30 min.	

TECHNICAL CHARACTERISTICS (SOLID STATE)

Tensile strength:	10.3 N/mm ²	ISO 527
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Elongation at max. strength:	0.62 %	
Elongation at fracture:	0.62 %	
Modulus of elasticity:	1990 N/mm ²	
Density at 20°C	1.16 g/cm ³	ISO 1183

Please note that an objective comparison with other data is only possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

The substrate must be dry (maximum 4% residual humidity), firm, solid and free of dust, fats and oil. Laitance and loose particles must be thoroughly removed, e.g. by shot blasting. Fats or oils as well as humidity can be removed for example by flame blasting.

For further details, see our Application Manual for Dura-Walk Balcony Systems.

MIXING

Prior to use, Dura-Systems Concrete Primer must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Systems Concrete Primer is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Systems Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

Dura-Park[®] Concrete Primer

APPLICATION

After the catalyst has been stirred in, the primer is poured onto the substrate in stripes and distributed with a short pile paint roller. A notched rubber squeegee can be used for fast distribution of large quantities. Apply at a rate of between 300 gr/m² to 500 gr/m² depending on density and porosity of the substrate. In any case, continue applying primer until saturation occurs to obtain a continuous resin film. On extremely porous substrates a second prime coat may be required. When a continuous resin film is obtained, broadcast fire-dried quartz sand (particle size 0.7 - 1.2 mm or 0.3 - 0.7 mm) into the still wet primer. Consumption approximately 0.3 – 0.5 kg/m². For further details, see our Application Manual for Dura-Walk Balcony Systems.

STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Systems Concrete Primer.

If the product is applied in enclosed areas without natural ventilation, forced ventilation must be arranged. Avoid strong concentration of vapour as well as direct contact with skin or eyes.

For further information see our Material Safety Data Sheet.



Dura-Systems® SNL Filler

PRODUCT DESCRIPTION

Crystal quartz mixture 0-0.4mm

Dura-Systems SNL Filler is strategically manufactured using a perfect ratio of quartz sand and quartz powder. Crystal quartz sands are washed several times. They are characterised by their high SiO₂ - content and are free from humidic substances.

PACKAGING

Paper bags of 25kg

NOTE: Disposal recommendations may be taken from the Dura-Systems SNL Filler Safety Data Sheet.

TECHNICAL DATA

Technical Information	Unit	Value
Spec. surface area (BET) DIN 66132	m ² / g	-
Oil absorption DIN ISO 787, T5	g / 100 g	-
Humidity DIN ISO 787, T2	Ma. - %	< 1
Bulk density	g / l	ca. 1,5
Wet screen residue (> 25 µm) ISO 3310	Ma. - %	-

Technical Information	Unit	Value
Specific Gravity	g / ml	ca. 2,5
pH value	-	-
Brightness (R475 abs)	%	-

Grain Size

Mass % Approx.	
> 0.4 mm	< 0.5
0.1 - 0.4 mm	ca. 50
0.0 - 0.1 mm	ca. 50

Disclaimer:

We expressly wish to point out that these products are natural ones which may be processed and/or blended (possibly also with synthetic products). Thus all the stipulated data and values are to be understood as indicative values possibly having tolerance ranges specific to the product. Our contractual associate remains committed to examining the suitability of the product for his assignment purposes and to inquire into precise information on tolerance ranges and application findings in view of both the natural and production/storage facility induced tolerances for the specific intended purpose. Also applicable are our "General Terms of Sales and Deliveries". The specified analysis values do not represent any guarantee or assurance in the legal sense being based, in fact, on average annual values. On request, we would be more than glad to provide you with the ongoing analysis values.



Dura-Systems® Tile/Metal Primer

FEATURES AND BENEFITS

- Excellent adhesion to metal and ceramic tile surfaces
- Easy to apply

PRODUCT INFORMATION

DESCRIPTION

Dura-Systems Tile/Metal Primer is a low viscosity, colourless, 2 component reactive resin based on methyl methacrylate (MMA).

USAGE

Dura-Systems Tile/Metal Primer is used as primer to give excellent bonding to metal substrates (e.g. iron, aluminium, stainless steel) and to ceramic tile substrates.

We strongly recommend with all Dura-Systems Primers that curing and adhesion tests are conducted on the particular substrate prior to general use on site.

PACKAGING

20 kg metal pails

TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS (LIQUID STATE)

Density at 25°C:	0.99 g/ml	ISO 2811
Viscosity at 25°C:	100-130 mPa * s	DIN 53018
Flash point:	+ 11.5°C	ISO 1516
Pot life at 20°C:	approx. 15 min.	
Curing time at 20°C:	approx. 30 min.	

TECHNICAL CHARACTERISTICS (SOLID STATE)

Tensile strength:	13.8 N/mm ²	ISO 527
Elongation at max. strength:	1.3 %	
Elongation at fracture:	1.3 %	
Modulus of elasticity:	1500 N/mm ²	
Density at 20°C	1.16 g/cm ³	ISO 1183

Please note that an objective comparison with other data is only

possible if norms and parameters are identical.

USAGE GUIDELINES

SUBSTRATE PREPARATION

All substrates must be dry, firm, solid and free of dust, fats and oil. Loose tiles and tiles over hollows must also be removed. Metal substrates must be prepared to SA 2.5.

For further details, see our Application Manual for Dura-Walk Balcony Systems.

MIXING

Prior to use, Dura-Systems Tile/Metal Primer must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. Dura-Systems Concrete Primer is thoroughly mixed together with the Dura-Systems Catalyst in accordance with the below guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the ambient temperature.

at 30°C	add 1% by weight of catalyst
at 20°C	add 2% by weight of catalyst
at 10°C	add 4% by weight of catalyst
at 0°C	add 6% by weight of catalyst
below 0°C	add 6% by weight of catalyst and additionally add an accelerating agent, Dura-Systems Accelerator.

Please contact our Technical Service Department for further details.

Note: Weight to Volumetric conversion of Catalyst.
1 cm³ of Dura-Systems Catalyst weighs 0.64 g
1 g of Dura-Systems Catalyst = 1.57 cm³

APPLICATION

After the catalyst has been stirred in, the primer is applied with a short pile paint roller. When a continuous resin film is obtained, broadcast fire-dried quartz sand (particle size 0.7 - 1.2 mm or 0.3 - 0.7 mm) into the still wet primer. Consumption approximately 0.3 - 0.5 kg/m². For further details, see our Application Manual for Dura-Walk Balcony Systems.

Dura-Park[®] Tile/Metal Primer



STORAGE

Store in a cool dry place and in original packaging and away from direct sunlight. Optimal storage temperature is between 15 - 20°C. the packaging.

HEALTH AND SAFETY PRECAUTIONS

Please refer to the Safety Data Sheets for the products used.

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Dura-Systems Tile/Metal Primer.

If the product is applied in enclosed areas without natural ventilation, forced ventilation must be arranged. Avoid strong concentration of vapour as well as direct contact with skin or eyes.

For further information see our Material Safety Data Sheet.



Grip Polyester

PRODUCT DESCRIPTION

Grip Polyester is a strong, elastic, polyester reinforcing fabric. Each is a lightweight material ideal for use with cold-applied mastics. Grip Polyester Soft differs from Grip Polyester Firm by conforming more easily and readily to irregular shapes and surfaces, making it ideal for use over irregular surfaces.

PRODUCT ADVANTAGES

Superior tensile strength

- Excellent elongation
- Will not unravel
- No fiber breakage
- Outstanding resistance to cold temperatures, cracking, rotting, and solvents
- Unaffected by water immersion

Temperature Resistance - Grip Polyester can withstand temperatures up to 204°C for short periods of time and temperatures up to 177°C for indefinite periods.

Weathering - Grip Polyester is unaffected by UV radiation when covered with roof coatings or aggregate.

APPLICATION

Grip Polyester is the reinforcement layer in a cold-applied roof maintenance system. Typically, it is embedded in a base layer of cold applied roof coating, carefully rolled to ensure complete adhesion, and top dressed with an additional layer of cold applied roof coating.

Grip Polyester Firm is suitable for smooth built-up and modified roof applications. Grip Polyester Soft can be used over irregular surfaces such as, metal roofs and with Garland's White-Knight® systems.

For specific application recommendations, please contact your regional Garland Technical Manager or the Garland Technical Department.

Grip Polyester

Technical Data	Grip Polyester Firm	Grip Polyester Soft
Weight per area	102 g/m ²	102 g/m ²
Tensile Strength (ASTM D 1682)	32.4 kg	25.9 kg
Tear Strength	7.89 kg	7.30 kg
Elongation (ASTM D 1682)	44.25 %	61.65 %
Mullen Burst (ASTM D3786)	63 kg	80.2 kg

Roll Dimensions	Grip Polyester Firm	Grip Polyester Soft
Width	1.0 m	1.0 m
Length	98.75 m	98.75 m
Weight	13.6 kg	13.6 kg
Nominal Thickness	381 microns	381 microns
Net Coverage	92.9 m ²	92.9 m ²
Packaging	25 rolls/pallet	25 rolls/pallet

* Grip Polyester Soft is also available in 100 mm, 150 mm, or 300 mm wide rolls, 98.75 m long for seam repairs.



Quick-Prep

PRODUCT DESCRIPTION

Quick-Prep is a two-component repair mortar based on a methyl methacrylate liquid resin which acts as the binder and a mix of specially graded quartz aggregate and powder additives.

MATERIAL

Multi-purpose, fast setting high strength two-component repair mortar for Garland waterproofing systems.

PRODUCT ADVANTAGES

- Can withstand considerable traffic without any adverse effects
- Fast setting
- Flexible application; can be used to solve numerous problems
- Reliable
- Long durability
- High Performance

USES

- Repair holes, damages and imperfections in concrete substrates
- Machine bases
- Joint chases
- Drill and bolt holes

PACK SIZE

17.80 kg Sack - Powder component
+ 2.20 kg Metal Pail - Liquid component
= **20.00 kg**

COLOURS

Not Applicable

STORAGE

6 months when stored in a cool and dry place in original packaging.
Optimal storage temperature is 15 - 20 °C

TECHNICAL INFORMATION

Technical characteristics

Quick-Prep powder component

Power density	1250-1350 kg/m ³	ISO 6782
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Quick Prep liquid component

Density at 20 °C	0.94 g/ml	ISO 6782
Viscosity at 20 °C	< 1 mPa * s	DIN 53018
Flash point	+ 11.5 °C	ISO 1516

Quick-Prep System

Pot life at 20 °C	15 min.	
Curing time at 20 °C	30 min.	

Technical characteristics, cured state

Density at 20 °C	2.12 g/cm	ISO 1183
Compressive strength	100 N/mm ²	DIN 53454
Tensile strength	16.5 N/mm ²	ISO 527
Elongation at fracture	0.3%	
Bending strength	28 N/mm ²	DIN 53452,64mm

APPLICATION CONDITIONS

Substrate Preparation

Substrate is to be firm, dry, solid and free of dust, fat, oil and laitance. All loose particles must be removed. Before application of Quick-Prep, Porous substrates should be pre-treated with Dura-Walk® Concrete Primer, which should be applied until a continuous primer resin film is obtained, onto which, a dried, fine quartz sand is evenly broadcasted.

The primer prevents the absorption of the resin binder component of Quick-Prep into the porous substrate, which if happens, disturbs the polymerisation process and affects final characteristics of Quick-Prep in the cured state.

Temperatures

Temperature of sub-strate is to be between 0 °C & 30 °C.

Quick-Prep

APPLICATION

The Quick-Prep Powder component must be mixed together with the liquid component to create a homogeneous mixture that can be applied with the help of a trowel or a wooden float at a minimum thickness of 6mm.

- The proportions of the mixture in parts weight liquid:powder is 1:8.
- The proportions of the mixture in parts by volume liquid:powder is 1:5.8.

These weights and volumetric relations must always be respected, especially is partial mixes are made, although we do not recommend making partial mixes.

When the mixture is too liquid for application, up to 15% (based on total weight) SNL powder can be added.

When applying the Quick-Prep In layer thickness greater than 25mm, the following mix ratios should be used:

Quick-Prep	Amount in kg	Minimum layer Thickness / mm
Powder component	17.8	6
Liquid component	2.2	
Powder component	17.8	25
Liquid component	2.2	
Quartz sand 2-8mm	8.0	
Powder component	17.8	50
Liquid component	2.2	
Quartz sand 2-8mm	3.0	
Quartz aggregate 8-16mm	12.0	
Quartz aggregate 16-32mm	8.0	

Addition of sand and aggregate in quantities other than these given in the table above are not recommended, and should be tested prior to use.

CONSUMPTION RATES

The consumption of Quick-Prep Without any additional filler is 2.1 kg per litre or 21kg per 0.01m³

GENERAL INFORMATION

The above information, especially information about application of the products, is based on extensive development work as well as many years of experience and is provided to the best of our knowledge. However, the wide variety of requirements and conditions on site mean that it is necessary for the product to be tested to ensure that it is suitable for the intended purpose. Only the most recent version of the document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products.

INFORMATION ON SAFETY, RISKS & PRECAUTIONS

For the powder component only there are no special precautions to observe.

For the liquid component and for the freshly mixing system are to observe: suitable protective clothing, gloves and safety goggles must be worn during mixing and application of Quick-Prep.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Quick-Prep is highly flammable; keep away from heat and all sources of ignition and do not smoke. The stirrer as well as all the other electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet.



SA ALU-X

PRODUCT DESCRIPTION

SA ALU-X is a self-adhesive bituminous vapour control layer which is saturated and coated with high quality SBS (Styrene-Butadiene-Styrene) modified bitumen suitable for cold application. The VCL consists of a core glass fibre reinforcement between an aluminium foil layer and a self-adhesive elastomeric compound which adheres, via pressure, to the laying surface.

FEATURES AND BENEFITS

Flame-Free Application

The self-adhesive vapour control layer allows for a fast, flame free application removing the need for torching and associated health and safety risks.

Ultimate Vapour Barrier

Designed to prevent high humidity air saturated with moisture from entering the roof system and causing issues with thermal efficiency of the insulation and blistering of the waterproofing membranes. SA ALU-X is water-resistant including salt solutions, diluted non-oxidising acids and bases.

USES

SA ALU-X can be used for many applications within Garland's product portfolio. It can be used as a vapour control layer within Garland's cold applied products such as Dura-Systems and White Knight. It can also be used as a self-adhesive vapour control layer installed onto a structural deck before the installation of R-MER Metal Systems. In addition SA ALU-X can be applied as a carrier membrane, a night seal or can be used to tape the joints within foil faced insulation when specified within a Garland Dura-Coat system.

APPLICATION INSTRUCTIONS

Prior to the installation of SA ALU-X care should be taken to ensure that the surface is smooth, dry, free of oil, dust or any impurities. be clean, smooth and dry. For best results the membrane should be unrolled and align into position. The film should then be removed simultaneously to the membrane being fixed to the deck.

When being installed to a timber deck within a Garland cold-applied system, a suitable primer must be used such as Garland Quick-Prime or SA Contact Primer.

Please see individual data sheets for coverage rates and application guidelines.

Refer to specific specifications provided by your Regional Technical Manager.

STORAGE

SA ALU-X must be stored in a cool, dry place away from direct sunlight.

TECHNICAL DATA

Reinforcement type:

Glass fibre.

Compound type:

Bitumen modified with thermoplastic rubber (SBS).

Surface finishing:

Upper side: Aluminium foil.

Laying method:

Cold Process Application

SA ALU-X

Characteristic	Test Method	Expression of result	Value	Units	Tolerance
Length	EN 1848-1	MLV	50	m	
Width	EN 1848-1	MLV	1.08	m	
Thickness	EN 1848-1	MDV	0.50	mm	± 10%
Weight	EN 1848-1	MLV	0.50	Kg/m ²	± 10%
Maximum tensile force	EN 12311-1	MDV	600/600	N/50 mm	
Flexibility at low temperature	EN 1109	MLV	-25	°C	
Flow resistance at elevated temperature	EN 12311-1	MLV	90	°C	
Water vapour transmission properties	-		1500	Sd, m	
Reaction to fire	EN 11925-2		Class E According to EN 13501-1		

For specific application recommendations, please contact your regional Garland Technical Manager or the Garland Technical Department.