

Product Data Sheet

Delta Roof Guard CP

(DMS801) 26.5kg of CP & Super Accelerant



An extremely durable two component liquid waterproof membrane with fast cure times achieved with addition of Roof Guard Super Accelerant, completely cold applied and suitable for use on most substrates.

Delta Roof Guard CP is a two part cold applied liquid polyurea waterproof membrane. The membrane cures in a continuous and elastic form, as a totally adhered layer. This waterproofing layer guarantees total water tightness and withstands building movements.

Delta Roof Guard CP is a unique product because it can be laid "wet on wet" with a very fast cure. Enabling the glass fibre reinforcement to be embedded into 2kg of membrane in almost one operation offers a great saving on labour times. The cure is now a chemical reaction and the membrane will discolour (goes yellow) but this does not affect the polymer stability. Delta Roof Guard CP is ideal for applications such as podium decks, green roofs or plaza decks where the membrane is buried and for balconies where a decorative top coat is applied. For normal roofing where the waterproofing membrane is exposed it is essential to add a UV top coat (such as 200gms pigmented Delta Roof Guard Colodur).

TECHNICAL DATA

Information on the product before application

	Component A	Component B								
Chemical Description	Polyisocyanate prepolymer	Polyamine mixture								
Physical State	Liquid	Liquid								
Packaging	Metal container 25kg	Metal container 1.5kg								
Non-volatile content (%)	Approx 85%	43%								
Flash Point	45°C	26°C								
Colour	Red	Clear yellow								
Density	1.3g/cm ³ (20°C)	0.99 g/cm ³ (20°C)								
Viscosity Approximate, Brookfield	<table border="1"><thead><tr><th>TEMPERATURE (°C)</th><th>VISCOSITY (mPa.s)</th></tr></thead><tbody><tr><td>10</td><td>20,000-30,000</td></tr><tr><td>20</td><td>6,000-10,000</td></tr><tr><td>30</td><td>1,000-1,500</td></tr></tbody></table>	TEMPERATURE (°C)	VISCOSITY (mPa.s)	10	20,000-30,000	20	6,000-10,000	30	1,000-1,500	5 mPa.s (20°C)
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10	20,000-30,000									
20	6,000-10,000									
30	1,000-1,500									
VOC class as per 2004/42/EC	184 g/L (15%)	572 g/L (57%)								
A/B Ratio	A-100 A-100	B-6 by weight B-8 by volume								
Colour	Dark grey									
Pot Life	<table border="1"><thead><tr><th>TEMPERATURE (°C)</th><th>Pot Life (min)</th></tr></thead><tbody><tr><td>5</td><td>180</td></tr><tr><td>23</td><td>60</td></tr><tr><td>35</td><td>30</td></tr></tbody></table>	TEMPERATURE (°C)	Pot Life (min)	5	180	23	60	35	30	
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5	180									
23	60									
35	30									
Storage	Keep between 5°C and 30°C (recommended)									
Use Before	12 months after manufacture (Note: 9 months if component A is white or black pigmented) provided it is kept in its sealed container.									

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Application

- Suitable for cold or warm roof construction
- Balconies and terraces
- Podium decks
- Car parks
- Infrastructure
- Walkways
- Ideal for new construction and refurbishment projects
- Suitable for green roofs



Benefits

- BROOF(L4)
- BBA Approved
- Quick installation times – offering cost savings
- Avoiding inherent risks associated with hot works
- Seamless applications - no joints or fixings
- Exceptionally fast curing
- Compatible with a wide range of substrates
- Root resistant
- Wet on wet application (2 layers laid as one)
- Fast curing



Specifications

- BS 8102:2009 Type C Drained Protection
- J40 (Clause 290) Flexible Sheet Tanking/Damp Proofing
- J31 Liquid Applied Waterproof Coatings/130 Roof Coatings
- J31/10 Warm Deck Roof Coating
- J31/110 Cold Deck Roof Coating
- J31/120 Warm Deck Roof Coating
- J31/130 Inverted Roof Coating
- J31/5 Cold Deck Roof Coating
- J41 – Reinforced Bitumen Roof Coating

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Information on the final product

Final State	Solid elastomeric membrane
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Colour	Standard colour is dark grey. Note: Colour changes very fast under sunlight (yellowing). For example, grey turns into green. This change does not impair the membrane mechanical properties.
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Hardness (Shore)	75 A (ISO 868)
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Mechanical Properties	Elongation (EN-ISO 527-3): 600% Tensile strength (EN-ISO 527-3): 5.7 mPa Tear strength (ISO 34-1 method B): 34 N/mm
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Tear Strength	14 N/mm (ISO 34-1, Method B)
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Water Vapour Permeability	$\mu > 2000$, 14g/m ² day, (EN 1931)
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Chemical Resistance	Permanent contact (0=worst, 5=best)
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DMS_Roof_Guard_CP_V5.1

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Chemical		Conditions	Result
Chemical Resistance	Water	15d, 80°C	5
	Brine	5d, 80°C	5
	Diesel	16d, 80°C	5
	Xylene	7d, 80°C	1
	Ethyl acetate	7d, 80°C	0
	Isopropyl alcohol	7d, 80°C	0
	Sodium hydroxide (40g/L)	7d, 80°C	5
	Hydrogen peroxide (33%)	7d, 25°C	4
	Ammonia (3%)	7d, 80°C	5
	Sulphuric acid (10%)	7d, 80°C	4
	Hydrochloric acid conc.	7d, 80°C	0
	Bleach		

Surface		Force (mPa)
Adhesion	Concrete	2.0
	Ceramics	2.6
	Polyurethane foam	1.4

UV Resistance	Good resistance to UV-induced degradation. Aromatic polyureas undergo change of colour under sunlight. This change does not affect its mechanical properties. Additional UV protection can be achieved by application of an Impertrans or Colodur top coat altogether with a colour paste.
Thermal Resistance	Degradation begins at 180°C
Fire Resistance	BROOF(t4) (external fire exposure test)

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Safety Requirements

In order to achieve a good penetration and bonding, support must be:

1. Flat and levelled (Delta Roof Guard CP is self-levelling)
2. Compact and cohesive (pull off test must show a minimum resistance of 1.4 N/mm²)
3. Even and regular surface
4. Free from cracks and fissures. If any, they must be previously repaired
5. Clean and dry, free of dust, loose particles, oils, organic residues or laitance

Recommended Environmental Conditions

Support temperature should be between 5°C and 40°C. At higher temperatures, specific precautionary measures must be taken. Please follow manufacturer advice. Air temperature must be between 5°C and 30°C. High moisture conditions can lead to bubble formation under the membrane surface. In cold weather, or when curing time has to be shorter, accelerators can be used. More information available on request.

Curing Time

Curing time is dependent on the environmental conditions. Curing rate increases with temperature and humidity rises. The following table gives a rough estimation of the curing time under diverse conditions for a 1 mm coat.

Temperature (°C)	rh (%)	Dry to touch (h)
16°C	50%	3 hours
20°C	50%	2.5 hours

Note: With Delta Roof Guard CP, the Roof Guard Super-Accelerant, makes it a chemical cure and colour change can be noticeable.

If used for a visible roof, use of pigmented Delta Roof Guard Colodur should be used.

Safety

Delta Roof Guard CP contains isocyanates and flammable solvents. Always follow the instructions provided in the Material Safety Data Sheet and take the precaution described there. As a general rule, suitable ventilation must be ensured, and all ignition sources must be avoided. This product is intended to be used only for the uses and in the way here described. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses.

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Environmental Precautions

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorised waste manager. If there is some residual product in the containers, do not mix it with other substances without checking for possible dangerous reactions.

Other Information

Disclaimer: All data and information contained in these Product/Technical Data Sheets is up-to-date and correct as at the date of issue. The information given is suggested as guidance and should only be used for evaluating your specific application. Delta Membrane Systems Limited cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. The information contained in these Product/Technical Data Sheets should not be considered a warranty, expressed or implied, including but not limited to a warranty of merchantability or fitness for a particular purpose. In no event shall Delta Membrane Systems Limited be liable for any incidental or consequential damages resulting from the use, misuse or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. When in doubt, contact Delta's Technical Team on 01992 523 523.

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