

DELTAshield Standard 300

TWO COMPONENT SPRAY APPLIED, SEAMLESS GENERAL PURPOSE PROTECTIVE LINING.

DESCRIPTION

DELTAshield Standard 300 is a spray applied, instant curing flexible membrane formulated from 100% pure Polyurea technology, that can be built to any thickness in one application. Due to **DELTAshield Standard 300's** unique chemistry it can be applied in virtually any environmental conditions. Very cold, very hot or even very humid environments will not negatively impact on the curing time or physical performance of **DELTAshield Standard 300**.

DELTAshield Standard 300 provides a flexible, seamless, hard wearing substrate protection solution for a wide range of substrates. Its rapid spray application and instant curing characteristics enable shorter shut down times than traditional glue in place rubber membranes or fix in place jointed panel products.

TYPICAL USES

- ✓ Substructure waterproofing of areas subject to impact, abrasion, traffic loads and back filling operations.
- ✓ General waterproofing applications including exposed roof top and car park decking applications.
- ✓ Steel and concrete tank linings subject to corrosion and abrasion.
- ✓ Protection of substrates against abrasion and impact in materials handling applications. – Mining, concrete manufacture, concrete batching plants, sand and gravel quarries.
- ✓ Sacrificial wear plates and linings in the mining and transport industries.
- ✓ Secondary containment linings in the power, petro chemical, oil and gas industries.
- ✓ Applications where substrates are being subjected to abrasion, impact and corrosion in industrial applications.

FEATURES

- ✓ Can be applied even under extreme climatic conditions. Hot, cold and humid conditions
- ✓ Very good abrasion, impact and chemical resistance for most applications encountered in general industry.
- ✓ Resistant to most standard chemicals, acids, oils, and bleaches*
- ✓ Very good elongation at break
- ✓ Very good tensile strength
- ✓ Suitable for exposed applications
- ✓ Seamless application and seamless finish. No welded joints or glued seams
- ✓ Excellent adhesion to concrete, steel, aluminum, plastics, fibers, wood, foam etc.
- ✓ Can be applied across multiple substrates in the same application process
- ✓ Remains flexible under a wide range of climatic conditions
- ✓ Rapid application to any thickness and very fast cure results in faster turnaround times
- ✓ Can build to any thickness in one application. Does NOT require multiple coats
- ✓ 100 % solids, VOC-free, contains zero solvents

PRODUCT INFORMATION

PROCESSING PROPERTIES	DATA		
Mixing ratio of Comp. A to Comp. B	1:1 by volume		
Material consumption [kg/m²/1mm]	Approx. 1 – 1.1		
Recommended thickness [mm]	Minimum: 1mm on steel 2mm on concrete.	Max: unlimited.	
Tack Free-Time at 20°C [sec.]	10 – 20		
Over coat window [h]	0 – 10 hours (without additional prep and priming)		
Temperature range for application (substrate) [°C]	-5 to +50		
Curing/loading after [h]	Foot traffic: 1	Mechanical: 2	Chemical: 12 - 24
Material Temperature (Preconditioning) [°C]	25 – 30		
Material Temperature (Spraying) [°C]	65 - 75		
Maximal relative air humidity for application [%]	98		
Pay attention to the dew point limit	Substrate 3C greater than Dew point		

PHYSICAL PROPERTIES	DATA		
Chemical Base	-	100% Pure Polyurea Technology	
VOC-content	DIN EN ISO 11890-1 / ASTM D-1259	0%	
Solids content	DIN EN 827 / ASTM D-2697	100%	
Viscosity [mPa*s] @ 25°C	DIN EN ISO 2884-2 / ASTM D-4878	Comp. A: 600 – 800	
Density [g/cm ³] @ 20°C	DIN EN ISO 2811-1 / ASTM D-1217	Comp. A: 1,09 – 1,13	Comp. B: 600 – 1.350
Density [g/cm ³]	EN ISO 1183 / ASTM D-792	1,02 ± 0,02	Comp. B: 0,98 – 1,02
Tensile strength [MPa]	ISO 37-2005 / ASTM D-638	≥ 16	
Modul [MPa]	ISO 37-2005 / ASTM D-638	100% Elongation: ≥ 8	
Elongation at break [%]	ISO 37-2005 / ASTM D-638	300	
Hardness [Shore D]	ISO 868-2003 / ASTM D-2240	40 ± 5	
Rebound resilience [%]	ISO 4662 / ASTM	≥ 32	
Tear growth resistance[N/mm]	ISO 34-1 method A	≥ 14	
Volume abrasion [mm ³]	DIN ISO 4649	≤ 250	
Taber Abrasion [mg]	ASTM D-4060	< 8 (Wheel CS17 / 1.000g / 1000 Cycles) < 80 (Wheel H18 / 1.000g / 1000 Cycles)	
Peel off strength [N/mm]	ISO 813 / ASTM	Concrete: ≥ 4	Steel: ≥ 8
Pull off strength [N/mm ²]	DIN EN ISO 4624 / ASTM D-4541	Concrete: ≥ 1.5	Steel: ≥ 5
Max. Process temp. [°C]	ISO 11346 / ASTM D-2485	Wet: 85	Dry: 120

PHYSICAL PROPERTIES	DATA	
Impact Resistance [J/mm]	DIN EN 10290-2004 Class: A	23° C: 9,0 -5° C: 7,0
Surface resistance [Ohm]	DIN IEC 60167	$\geq 1,0 \cdot 10^{11}$
Volume resistance [Ohm]	DIN IEC 60093	$\geq 1,0 \cdot 10^{11}$
Storage conditions [°C]	DIN EN 12701	10 – 30 (in closed original drums, stored at dry and well-ventilated place; beware of freezing)
Shelf life	-	Approximately 18 months unopened and stored correctly

* VIP-DELTA recommends in all applications involving chemicals a pre-test of the lining's suitability in the customer's application is conducted. Consult with VIP-DELTA Technical Team.

DeltaShield Standard 300 is an aromatic based system and can display colour shift under UV light. This colour shift will not negatively affect the products physical performance.

APPLICATION NOTES

- ***DeltaShield Standard 300*** can only be applied using high pressure heated plural component spray equipment by trained and approved applicators.
- In ambient temperatures below 15C chemical drums should be pre-heated using band heaters to 30 – 40C.
- The B-side component should be thoroughly power stirred prior to the commencement of spraying and periodically during the spraying process to ensure there is no settling out of the B-side chemical components.
- The Pigment is always mixed into the B-side using a power stirrer.
- Both the A-side and B-side drums should be fitted with desiccant dryers.
- Compressed air supply should be supplied via an air dryer.
- Primary heaters should be set at between 65-75C. Adjustments can be made on-site based on environmental conditions, mixing module size and application circumstances.
- Hose heaters should be set at 70C. Adjustments can be made on-site based on environmental conditions, mixing module size and application circumstances.

SAFETY AND HANDLING

- All applicators of ***DeltaShield Standard 300*** should be trained and approved by the manufacturer.
- Spray applicators should wear appropriate PPE including approved breathing equipment, eye wear, Nylex or similar light weight spray suit and appropriate covered footwear.
- Avoid breathing in vapours during spraying or when handling chemicals.
- Avoid eye and skin contact.
- Store chemical drums in a cool dry environment. Avoid storing chemicals for long periods in direct sunlight.
- Do not store chemicals next to food stuffs.
- Ensure chemical drums are kept tightly sealed and avoid ingress of air and moisture.

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own investigations and testing, the suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. Due to the large number of variables that can affect the product and the application process that are out of the control of VIP-DELTA Coatings International LLC no warranty of any kind, express or implied is given. The liability of VIP-DELTA Coatings International LLC for any claims is limited to the purchase value of the material.

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