

DELTA Seal

Maxi Seal



T E C H N I C A L D A T A S H E E T

Two component polyurea sealant – Gun & Pouring Grade

Description

Maxi Seal is a two-component gun and pouring grade polyurea sealant with rapid curing time and high elongation features. It is not moisture sensitive during the application and curing process making it ideal joint filling material for both new construction and maintenance project application.

Maxi Seal is as per BS EN 14188-2 multi component , self leveling , non- sag class D sealant.

Maxi Seal is used for horizontal expansion joints where large movement is anticipated in concrete construction and for joints between diverse construction material. It is suitable for sealing joints subjected vehicle traffic and is chemically resistant to water, fuels, oils and solvents.

M I X

P O U R

S P R E A D

Features

- Excellent adhesion with most common construction material
- High movement accommodation systems
- Permanently elastic and forms watertight seal
- Good chemical resistance
- Flame and fuel resistance
- Easy repair of mechanical damages
- Economical
- 1000% elongation

Typical uses

- Residential and Commercial buildings
- Subways, Bridges, Culverts, Tunnels
- Rigid pavements of highways, airport runways, aprons, etc
- Dams, reservoirs and water treatment plants
- Precast concrete elements
- Repairing mechanical damages of existing coatings including hot spray DELTAShield range of membranes



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Product information

Processing properties	Data
Multi component as BS EN 14188-2	two Component ,Class D sealant ,
Mixing ratio A : B [by volume]	10: 1
Material consumption [kg/m ² /1mm]	Approx. 1 – 1.2
Recommended thickness per layer [mm]	5 – 20
Sag Flow	Non- Sag
Over coat window [h]	1 – 12
Curing/loading after [h]	Walkable: 1 Mechanical: 24
Full cure [days]	7
Temperature range for application (ambient) [° C]	0 - 50
Service temperature [° C]	-20 - +60
Storage conditions (closed original drums, dry & covered place) [° C]	10 – 30
Shelf life (unopened and stored correctly) [year]	1

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Physical properties	Data	
VOC [g/L]	USEPA 24	< 135
Solids [%]	ASTM D-2697	90 ± 2
Viscosity [mPa*s] @ 25° C	ASTM D-4878	Comp. A: 3500 – 4000 Comp. B: 250 – 350
Density [g/cm³] @ 25° C	ASTM D-1217	Comp. A: 1.04 – 1.07 Comp. B: 1.02 – 1.05
Tensile strength [N/mm²]	ASTM D-412-16(2021)	12 ± 2
Elongation at break [%]	ASTM D-412-16(2021)	1000 ± 200
Hardness [Shore A]	ASTM D-2240-15(2021)	80 ± 5
Tear Strength [N/mm]	ASTM D-624-00(2020)	60 ± 5
Elastic recovery at 23°c	EN ISO 7389	
Crack bridging ability [mm]	EN 1062-7:2004	3.2
Peel Strength [N/mm]	ASTM D-903-98(2017)	3.66
Pull off strength [N/mm²]	ASTM D-4541(2017)	Concrete: ≥ 1,5 Steel: ≥ 6
Water vapor transmission rate [g/m²/24hours]	ASTM E-96/E96M - 23	0.3231 (at 23° C a. 50% relative humidity)
Water tightness	ASTM C-1185-08(2016)	Pass; no water drops observed on the underside of the sheet

- DELTA recommends in all applications involving chemicals a pretest of the lining's suitability in the customer's application is conducted. Consult with DELTA Technical Team
- DELTAShield Maxi Seal is an aromatic based system & can display color shift under UV light. DELTA recommends the use of DELTAShield TC 100 aliphatic top coat for color stability
- All data depends on site conditions. Ambient temperatures, substrate temperatures and humidity will all influence stated data
- Film thickness and application techniques can also affect the stated data
- Cold temperatures will result in slower curing times and high temperatures will increase reactivity and reduce curing times relative to the stated data

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Physical properties	Data	
Extrudability	EN 28394	
Rate of cure	EN 14187-1	
Tack free time	EN 14187-2	
Resistance to flow ns type	EN ISO 7390	
Loss of volume	EN ISO 10563	
Change in mass and volume after immers	EN 14187-4	
Resistance to Hydrolysis at 60°C	EN 14187-5	
Resistance to Hydrolysis at 70°C	EN 14187-5	
Resistance to Hydrolysis at 80°C	EN 14187-5	
Resistance to flame	EN 14187-7	
Cohesion at 23°C	EN OSO 9047	
Bonding strength at 23°C	EN 28340	
Artificial weather by UV	EN 14187-8	
Adhesion/cohesion properties after immers	EN 14187-6	

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Application notes

- All substrates should be thoroughly cleaned and properly prepared before applying **Maxi Seal**. Consult with DELTA technical department for substrate preparation requirements and methods
- It is recommended to seal porous low quality concrete surfaces with DELTA Prime range of primers before applying **Maxi Seal**
- Stir the contents of the B side component container using a slow RPM stirrer. Avoid using a high speed stirrer and introducing air into **Maxi Seal**
- Combine the B side component and the A side component at the specified ratio by weight and stir the combined product using a slow RPM stirrer
- Pour **Maxi Seal** onto the prepared substrate and spread using a rake trowel, roller or brush.
- If a slip resistance surface finish is required broadcast clean dry quartz aggregates into the final layer of **Maxi Seal** whilst wet. *Do not incorporate aggregates throughout all layers; only the final layer

Safety & handling

- All applicators of **Maxi Seal** should be trained and approved by the manufacturer
- Wear suitable respiratory protection when using
- 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
- Once the container has been opened all the contents should be used

Technical services

- Detailed technical assistance and further information regarding this system and its relevant application specifications are available from DELTA Technical Services

Packaging

- **Maxi Seal** is supplied in 15 Liter sets
 - Component A : 15 Liter
 - Component B : 1.5 Liter

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 DELTA Coatings International LLC no warranty of any kind, express or implied is given. The liability of DELTA Coatings International LLC for any claims is limited to the purchase value of the material.

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