DIASEAL STRONG

Elastomeric polyurethane sealant

One-component polyurethane sealant with excellent thixotropic that polymerizes in contact with atmospheric moisture and forms a sealant for joints that adapts to the movements of the substrate and has excellent adhesion to most materials used in construction. It can be applied from + 5 ° C to + 35 ° C, as it has a stable viscosity even at extremely low temperatures. The product has excellent workability and stability over time.

BENEFITS

- Easy to use.
- It adjust itself according o the movement of the support.
- Excellent adhesion to the most common building materials used in construction (concrete, polycarbonate, aluminium, glass, steel …)
- Excellent chemical resistance
- Excellent resistance to micro-organism and to fungus.
- Heat resistant (>60°C).
- It remains elastic even at -40°C.
- Suitable in contact with drinkable water.
- Ageing resistant.

YIELD

Yield in linear meters per pack of 600 cc - see table on page 2.

COLOUR

Grey.

PACKAGING

600 cc cartridge
Cartridge in one box: 20
Boxes per pallet: 45

APPLICATION FIELDS

Suitable for sealing joints, prefabricated panels, bricks, prefabricated blocks and joints between concrete slabs. It is also designed to seal swimming pools and water tanks even with dissolved chemicals, and drinking water tanks. *Diaseal Strong* is designed for applications on metal structures (steel, aluminium), windows and aluminium panels, and for irrigation channels. It can be used on glass, polycarbonate, granite and marble. Also suitable for immersion applications (polymerization must take place in a dry condition). For applications on other types of substrate, an adhesion test is recommended before use.

STORAGE

Store the product in its original packaging perfectly closed in dry, well-ventilated areas, away from sunlight and frost, at temperatures between + 5 °C and + 35 °C. Storage time 12 months. Once opened, use the package as soon as possible.

PREPARATION OF THE SUPPORT

The substrate must be completely hardened, dry and sufficiently resistant. The surface must be thoroughly clean, without oils, greases, waxes, silicone residues, dust, crumbly or inconsistent parts, brush the surface if necessary, eliminating dust and residues.
The substrate temperature must be between +5 °C and +40 °C. In most applications, the use of a primer is not required. In case of use on porous substrates or joints, before applying *Diaseal Strong*, primer the surface with *Vapostop* to avoid incorporating air into the product during drying (polymerization).

MIXING

The single-component product *Diaseal Strong* is ready to use.

NON TOXIC

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APPLICATION

1. For joints deeper than 2.0 cm insert a neoprene cord. Be careful not to puncture the outer skin of the cord to avoid the formation of bubbles at high temperatures. The insertion of the cord allows you to maintain the right ratio between the depth and width of the joint.
2. Insert the sealant into the special gun, cut the final part of the package and extrude the product inside the joint making sure that there is no trapped air.
3. Wider joints require more than one pass of the application gun to ensure that the sealant is in contact with the walls and bottom of the joint.
4. At the end of the installation, make an omega (Ω) groove on the surface of the *Diaseal Strong* to improve the performance of the product.
5. It is recommended to work the product immediately after its application.

DRYING TIME

At a temperature of 23°C and relative humidity of 50% the product dries in 5 days.

- Drying times are influenced by relative humidity and temperature, and can also vary significantly.

SUGGESTIONS

- Do not apply at temperatures lower than +5°C or higher than +35 °C.
- During the summer season, apply the product during the cooler hours of the day, away from sun.
- Do not apply with imminent threat of rainwater or ice, with strong fog or with relative humidity level higher than 70%.
- Do not apply to crumbly or dusty concrete support. In these cases prime the surface with *Vapostop*.
- If the support is porous (such as cracked or scarcely compacted concrete), pores or cracks must be accurately sealed (by using *Vapostop*) to avoid infiltrations of air into the non-polymerized sealant.

CLEANING

Tools must be cleaned with paper and then with acetone or xylene.

SAFETY

During handling, always use personal protective equipment and follow the instructions on the safety data sheet relating to the product.

* The above data, even if performed according to standard test methods, are indicative and may undergo changes as the specific site conditions vary.

Technical Data *

Features		Units
Yield	Yield in linear meters per pack of 600 cc	-
Aspect	paste	-
Colour	grey	-
Drying time (T=23°C; U.R. 50%)	5	days
Drying time to the touch (T=23°C; U.R. 50%)	1,5 - 2	hours
Application temperature	+ 5 / + 35	°C
	+ 41 / + 95	°F
Polymerization time (T=23°C; U.R. 50%)	3 – 4	mm/day

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Storage	in perfectly closed original packaging, 12	months
Packaging	600	cc

Final performances **		Units	Regulation	Result
Density at 23 °C	1,25	g/cm^3	ISO 2811 DIN 53217 ASTM D1475	-
Hardness	± 25	Shore A	ISO R868 DIN 53505 ASTM D2240	-
QUV *Accelerated Weathering Test* (4 hours of UVB at 60°C and 4 hours of condensation at 50°C)	1640 hours (10 years**)	hours	ASTM G53	passed
Toxicity	-	-	-	None after polymerisation
Elongation	> 900%	-	DIN 52455 ASTM D412	-
Resistance to 100% of elongation	0,2	N/mm^2	DIN 52455 ASTM D412	-
Thermal resistance (100 days at 80°C)	-	-	EOTA TR011	passed
Suitability in contact with drinkable water	-	-	D.M. 21/03/1973 e s.m.i.	suitable
Resilience (ability to withstand sudden impact without cracking)	> 80%	-	DIN 52458	-
Hydrolysis (8% KOH, for 15 days at 50°C)	-	-	-	no changes of elasticity
Hydrolysis (H_2O, for 30 days, cycles between 60°C and 100°C)	-	-	-	no changes of elasticity
Immersion in to Hydrochloric acid (HCl – pH=2) for 10 days	-	-	-	no changes of elasticity
Adhesion to concrete	> 2,0	N/mm^2	ASTM D4541	-

** Yield in linear metres per 600-cc cartridge

Yield in linear metres per 600-cc cartridge **

	Depth				
Width	5 mm	10 mm	15 mm	20 mm	25 mm
5 mm	24	12	8	6	4,8
10 mm	12	6	4	3	2,4
15 mm	8	4	2,9	2	1,6

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