**WATERPROOFING** - sealant

1309404

# DIASEAL STRONG

*Elastomeric polyurethane sealant*

**One component polyurethane sealant with excellent tixotropy that polymerizes in contact with humidity and it creates a sealant for joints that it adjusts itself according to the movement of the support. It has an excellent adhesion to the most common building materials present in construction. It can be applied from +5°C to +40°C because it has a stable viscosity even at extremely low temperatures. The product has an 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, glass, steel, aluminum, polycarbonate, …)
- Excellent chemical resistance
- Excellent resistance to micro-organism and to fungus
- Heat resistant (>60°C)
- It remains elastic even at -40°C
- Ageing resistant

## APPLICATION FIELDS

Suitable to seal joints of:

- concrete;
- concrete prefabricated panels;
- space between concrete sheets;
- prefabricated concrete bricks and blocks;
- swimming pools and water tanks even with chemical substances;
- metal structure (aluminum, steel);
- windows and aluminum panels;
- irrigation ditchs;
- application to glass, polycarbonate, granite and marble.

Suitable even for underwater application (polymerization must react in a dry condition).
For application over other kind of support, before using it, it is recommended an adhesion test.

## YIELD

Yield in linear metres per 600-cc cartridge – see table on the next page.

## COLOUR

Grey.

## PACKAGING

600 cc cartridge

| | |
|---|---|
| Cartridge in one box | 24 |
| Boxes per pallet | 45 |

## STORAGE

Store the product in its original containers perfectly closed, in dry places, well ventilated, away from sunlight and ice, at temperatures between +5°C and +25°C.
Storage time: 12 months. Once opened, use the cartridge as soon as possible.

## PREPARATION OF SUPPORT

- The support must be completely hardened, dry and resistant enough.
- The surface must be thoroughly clean, without oils, greases, waxes, silicone residues, dust, debris or detaching parts. In case brush the surface eliminating powder or residual.
- Substrate temperature must be between +5°C and +40°C.
- In most case it is not necessary to apply a primer. If the product is used to porous support or to joints, before applying *Diaseal Strong* prime the surface with *Epoxy Primer* to avoid to incorporate air while the product is getting dry (polymerisation).

NON TOXIC

For application video, product page, safety data sheet and more information.







DIASEN IMPROVE YOUR BUILDING

# DIASEAL STRONG

*Elastomeric polyurethane sealant*

## Yield in linear metres per 600-cc cartridge

| | Depth | | | | |
|---|---|---|---|---|---|
| **Width** | 5 mm | 10 mm | 15 mm | 20 mm | 25 mm |
| 5 mm | 24 | 12 | - | - | - |
| 10 mm | - | - | 4 | 3 | 2.4 |
| 15 mm | - | - | - | - | 1.6 |

## Technical Data

| Features | | Unit |
|---|---|---|
| Aspect | paste | - |
| Colour | grey | - |
| Drying time (T=20°C, R.H. 40%) | 5 | hours |
| Superficial drying time (T=25°C, R.H. 55%) | 1,5 – 2 | hours |
| Polymerisation time | 3 - 4 | mm/day |
| Application temperature | +5 /+40 | °C |
| Working temperature | -40 /+80 | °C |
| Packaging | 600 | cc |

| FInal performances | | Unit | Regulation | Result |
|---|---|---|---|---|
| Density at 20°C | 1,25 | g/cm$^3$ | ISO 2811 / DIN 53217 ASTM D1475 | - |
| Hardness | ± 25 | Shore A | ISO R868 / DIN 53505 ASTM D2240 | - |
| 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 |
| Resilience (ability to withstand sudden impact without cracking) | > 80% | - | DIN 52458 | - |
| QUV Accelerated Weathering Test (4 hours of UVB at 60°C and 4 hours of condensation at 50°C) | 2000 | hours | ASTM G53 | passed |
| Toxicity | - | - | - | none after polymerisation |
| 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 | - |

* The above data, even if carried out according to regulated tests are indicative and they may be change when specific site conditions vary.

# DIASEAL STRONG

*Elastomeric polyurethane sealant*

## APPLICATION

1. For joints with depth higher than 2,0 cm, insert a neoprenic cord. Make sure not to make holes on the external skin of the cord to avoid bubbles at high temperatures. The insertion of the neoprenic cord allows to maintain the right ratio between the depth and the width of the joint.
2. Insert the sealant in the appropriate gun, cut the final part of the package and apply the product inside the joint taking care there is no air inside the product.
3. Larger joints requires more than one application, taking care that the sealant is in contact with the wall and the bottom of the joint.
4. Apply the product with a suitable spatula or with a suitable extrusion gun for sealants.
5. It is recommended to work the product by spatula as soon as after its application.
6. For an excellent performance we recommend a ratio between width and depth of 2:1, with a minimum depth of 10 mm.

## DRYING TIME

At 20°C and 40% of relative humidity level, the product drying time is 5 hours.
- Drying time is influenced by relative humidity level and by temperature and may change significantly.

## SUGGESTIONS

- Do not apply at temperatures lower than +5°C or higher than +40°C.
- During 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 *Epoxy Primer*.
- If the support is porous (such as cracked or scarcely compacted concrete), pores or cracks must be accurately sealed (with *Epoxy Primer*) to avoid infiltrations of air into the non polymerized sealant.

## CLEANING

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

## SAFETY

For the handling, see product safety data sheet.



**DIASEN Srl -** Z.I. Berbentina, 5 - 60041 Sassoferrato (AN)
Tel. +39 0732 9718 - Fax +39 0732 971899
diasen@diasen.com - www.diasen.com