

# technical data sheet

## SEAL N FLEX 1

### Polyurethane Construction Joint Sealant

#### PRODUCT DESCRIPTION

Seal "N" Flex 1 is a low modulus, one component, Class A polyurethane sealant. When cured it will form a tough, flexible seal capable of cyclic expansion and compression movement of 50% ( $\pm$  25%) of the original joint width.

Seal 'N' Flex 1 is virtually unaffected by normal weathering conditions such as rain, sunlight, snow, sleet, ultra-violet radiation, ozone, atmospheric contamination and pollution. Its excellent weather ability enables it to retain its original properties after years of exposure, refer to the CSIRO RILEM LONG- TERM SEALANT DURABILITY STUDY DBCE Doc. 97/196 (M).

#### RECOMMENDED USES

##### Sealing joints in:

- Insitu concrete
- Precast and tilt up panels
- Brick & blockwork
- Plasterboard face and paper lined recessed edges
- Aluminium windows
- Granite, sandstone and marble
- GRC, Fibreglass & Specialty panel systems
- Metal curtain wall
- Water tanks

#### FEATURES & BENEFITS

- Low modulus 50% ( $\pm$  25%)
- Excellent durability
- One component, no mixing required
- Australian made
- Colour range
- Acoustic rating
- Paintable (refer limitations)
- Non staining

#### APPROVALS AND STANDARDS

- CSIRO RILEM LONG - TERM SEALANT DURABILITY STUDY DBCE Doc. 97/196 (M)
- ISO 11600-Class F-25LM
- DIN 18540 (German) and SNJF (French) approval as a low modulus external joint sealant
- ASTM C.920-87 & 98 (USA) as Type S, Grade NS, Class 25, use NT, G, A, M,&O as an external joint sealant.
- AS4020 – 1992 Potable water
- AS1157-1972 Resistance to fungal growth
- Ministry of Agriculture and fisheries New Zealand (Meat, fish, Game, Poultry- All areas)

#### PERFORMANCE PROPERTIES

Typical properties after seven days cure at 25°C and 50%RH.

|                         |   |
|-------------------------|---|
| Appearance              | Non-sag smooth thixotropic paste  |
| Cure Method             | Moisture Curing   |
| Tack free time          | 6-12 hours  |
| Rate of cure in mm/24h  | 2   |
| Hardness shore A        | 30 approx.  |
| Tensile strength        | > 1.3 N/mm <sup>2</sup>   |
| Chemical resistance     | Resistant to dilute acids, alkalis & some solvents. Intermittent contact with diesel and petroleum. |
| Elongation at break     | >900%   |
| Application Temperature | 5°C to 35°C   |
| Temperature resistance  | -40°C to +70°C  |
| Full cure               | 7 days on porous substrates   |

#### PACKAGING

Seal "N" Flex 1 is supplied in 300ml cartridges and 600ml sausages, 20 per carton.

| ITEM NO | SIZE            | COLOUR       |
|---------|-----------------|--------------|
| 256158  | 300ml Cartridge | Grey         |
| 246204  | 300ml Cartridge | Black        |
| 246220  | 300ml Cartridge | White        |
| 216275  | 600ml Sausage   | Grey         |
| 217824  | 600ml Sausage   | Limestone    |
| 217808  | 600ml Sausage   | Black        |
| 216267  | 600ml Sausage   | White        |
| 217751  | 600ml Sausage   | Bahama Beige |
| 226203  | 600ml Sausage   | Sandstone    |
| 226688  | 600ml Sausage   | Redwood      |
| 218626  | 600ml Sausage   | Off White    |
| 232440  | 600ml Sausage   | Manilla Sand |
| 242322  | 600ml Sausage   | Classic Bone |
| 232556  | 600ml Sausage   | Epping Grey  |

#### COVERAGE

The coverage below is the approximate lineal metre coverage per pack size.

| SIZE  | 6mm<br>x<br>6mm | 10mm<br>x<br>10mm | 20mm<br>x<br>10mm |
|-------|-----------------|-------------------|-------------------|
| 300ml | 8.3             | 3                 | 1.5               |
| 600ml | 16.7            | 6                 | 3                 |

Calculation formula  $\frac{W \times D \times L}{1000}$  = Litres

W = Width (mm) D = Depth (mm) L = Length (metres)

#### APPLICATION INSTRUCTIONS

##### Preparation:

Clean and dry all surfaces by removing foreign matter and contaminants such as oil, dust, grease, frost, water, dirt, old sealants and any protective coating. Dust and loose particles should be blown out of joints or vacuum cleaned. Non porous surfaces may require preparation / priming, refer primer selection guide. Cleaning solvents should not be allowed to dry or evaporate without being wiped with a clean, dry cloth. DO NOT USE METHYLATED SPIRITS

## PRIMING

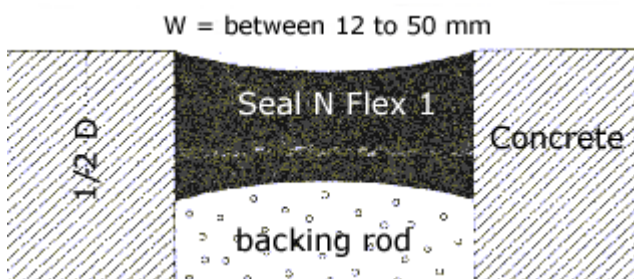
For maximum performance on porous surfaces and in all immersed applications use Bostik N49 Primer. 5077 cleaner / N40 primer is recommended for non-porous surfaces. Prior to any application of Seal'N'Flex1 refer to primer selection guide.

## APPLICATION

Seal-N-Flex 1 should be dispensed from either the cartridge or sausage by means of a caulking gun (available from Bostik). Pierce the membrane at the top of the cartridge and screw on the nozzle. Cut nozzle to give the required angle and bead size. Place the cartridge in a Bostik applicator gun and squeeze the trigger. For sausages, a barrel gun is required, clip the end of the sausage and place in barrel gun. Screw end cap and nozzle on to barrel gun. Using the trigger extrude the sealant, to stop depress using the catch plate. Apply Seal N Flex 1 in a continuous bead using enough pressure to properly fill the joint. Tool off surface of sealant with an appropriate sized spatula or trowel. Apply sufficient pressure to leave a smooth, consistent surface and ensure maximum contact with the interface of the joint.

## JOINT SEALING HINTS

- Prime prior to the installation of the backing rod
- Always use backing rod for correct sealant geometry & contact with the substrate
- Ensure maximum adhesion to bond face and depth to width ratio of 1:1 to 12mm and 1:2 from 12– 50mm
- Tool sealant to achieve concave shape



## PRECAUTIONS

Seal 'N' Flex 1 should:

- **NOT** be used in chlorinated water such as swimming pools, spas etc.
- **NOT** be used on any material containing bitumen. Bitumen products should not come into contact with Seal N Flex 1.
- **NOT** be constantly immersed in salt water
- **NOT** be used for glazing applications

Seal 'N' Flex 1 should:

- **NOT** be applied to cement based substrates within 28 days of initial pour or set.
- **NOT** be used in trafficable joints greater than 10mm in width
- **NOT** be applied at temperatures below 5°C.
- **NOT** be exposed to water and/or alcohol before it has completely cured.

ALSO NOTE THAT SEAL N FLEX 1 WHITE MAY YELLOW ON THE SURFACE IF EXPOSED TO UV FOR PROLONGED PERIODS OF TIME.

## PAINTABILITY

Bostik Seal 'N' Flex 1 can be painted after full cure. Coatings containing solvents such as enamels, oil based or other coatings may cause the surface of the sealant to react creating a tacky surface. A field test is recommended to ensure compatibility of the coatings with Seal 'N' Flex 1 (refer PATS).

## P.A.T.S (Pretested Adhesion To Substrate)

Bostik offer a service to eliminate potential field problems by pre-testing Bostik sealants for adhesion with samples of substrates and or coatings to be applied. Consult a Bostik representative for further information.

## HEALTH AND SAFETY

On contact, uncured sealant causes irritation. Gloves and protective goggles should be worn during application and use.

- Avoid contact with skin, eyes and avoid breathing in vapour.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do not induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly for a minimum of 15 minutes and see a doctor.
- For more detailed information refer to Material Safety Data Sheet.

## CLEAN-UP

Clean up uncured material and equipment immediately after use using Bostik 9907 solvent. Do not use solvents on skin.

## STORAGE

Store between 5°C and 30°C. Shelf life is two years in original unopened cartridge or sausage.

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