



Technical Data Sheet

Seal N Flex FC

Fast Cure Polyurethane Sealant/Adhesive

DESCRIPTION

Bostik Seal N Flex FC is a high performance fast cure one component polyurethane sealant. When cured it will form a tough, flexible seal and bond capable of cyclic, expansion and compression movement. Joints or fabrications formed with this sealant can be expected to extend and compress a total of 50% ($\pm 25\%$) of original joint dimensions to **ASTM C719**.

Bostik Seal N Flex FC 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. Its physical properties remain relatively unchanged over a wide temperature range (-40°C to 70°C).



RECOMMENDED USES

- ✓ For sealing floor joints
- ✓ Granite, sandstone and marble pointing
- ✓ GRC, Fibreglass & most specialty panel systems
- ✓ Trafficable – Plats, stairs, roads, runways, aprons and pavements
- ✓ Vertical-Precast, Block work, plasterboard and most common building substrates.
- ✓ Pick resistant - Prisons, cells, schools and public amenities.
- ✓ Chemical resistant - Service stations, hangers, aprons and bonded areas.
- ✓ Potable water tanks
- ✓ Sealing gaps and adhering most façade and cladding panels to various building materials
- ✓ Sealing construction and expansion joints
- ✓ Perimeter sealing of door and window framing
- ✓ For new construction and remedial applications
- ✓ Adhesive for wide range of building and construction applications
- ✓ For sealing of concrete joints in airport runways

FEATURES

- ✓ Fast tack free time and cure rate
- ✓ High bond strength
- ✓ A medium/high modulus product, which forms a resilient and permanently elastic seal
- ✓ Excellent adhesion to most materials including metals, concrete, brick, wood, plasterboard, GRC & CFC
- ✓ Paintable (refer paintability section)
- ✓ Non-slumping
- ✓ Resistant to fungal attack to AS1157.2
- ✓ Potable water approval to AS4020
- ✓ Excellent resistance against hydrolysis, ageing and a wide range of chemicals
- ✓ One component, no mixing required
- ✓ High movement accommodation ($\pm 25\%$) ASTM C719
- ✓ Australian Made

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Clean all surfaces by removing foreign matter and contaminants such as oil, dust, grease, frost, water, surface dirt, old sealants and any protective coating. Porous substrates should be cleaned by grinding saw cutting or blast cleaning (sand or water). Dust, loose particles, etc should be blown out of joints with oil free compressed air or vacuum cleaned. Non porous and plastic surfaces should be cleaned by solvent or mechanical means. Cleaning solvents should not be allowed to air dry or evaporate without being wiped with a clean, dry cloth.

PRIMING POROUS SUBSTRATES

- Absorbent or porous substrates will allow a bead of water to easily soak into and wet out the surface of the substrate.
- For maximum performance on porous surfaces and, in all periodically immersed and submerged applications, use **Bostik N49 Primer**, or one coat of Bostik **MVP525**.
- Porous substrates not subject to immersion or ponded water, e.g. vertical expansion joints in concrete or masonry structures, do not require priming if clean, dry and uncontaminated.

PRIMING NON POROUS SUBSTRATES

- Non-absorbent substrates will cause a bead of water to be retained on the surface of the substrate as a raised droplet. The droplet does not easily soak into the surface of the substrate.
- **Bostik MVP525** is recommended for non-porous or burnished/overworked concrete substrate as per **Bostik MVP525** Technical Data Sheet.
- **Bostik N40 Primer** is recommended for non-porous plastic and metal substrates.
- Prime all plastics and metallic non-porous substrates with **Bostik N40 Primer** using the two-cloth method described below.
- E.g. UPVC outlets and pipe work: brass, copper fittings, stainless steel trays and flashings

TWO CLOTH METHOD – N40 PRIMER APPLICATION

- Dampen a clean and dry cloth with **Bostik N40 Primer** and spread evenly over the non-porous substrate using a cleaning/rubbing action.
- With a second clean and dry cloth, immediately wipe all primer residues off with a buffing action.
- Allow the substrate to dry for a minimum of 5 minutes before installing Bostik **Seal 'N' Flex FC**.
- Do not leave the primer longer than 4 hours before applying sealant/adhesive.
- Re-prime if 4 hours has elapsed without applying sealant/adhesive
- Clean and re-prime if the primed surface is contaminated before **Bostik Seal 'N' Flex FC** is applied.

APPLICATION

Bostik Seal N Flex FC when used as an adhesive or sealant should be dispensed from either the cartridge or sausage sachet by means of a hand or air operated caulking gun designed for such application (available from Bostik). Pierce the membrane from the top of the cartridge and screw on the supplied nozzle. Having previously cut this to give the required angle and bead size. Place the cartridge in a suitable Bostik extrusion gun and press the trigger. For sausages, a barrel gun is required, this is available from Bostik. Clip the end of the sausage and place complete sausage with pierced end located at the top of the nozzle. Screw top of nozzle and housing on barrel of gun. Using the trigger on the gun extrude product from the sausage to stop product flow, using the thumb depress the catch plate mechanism located at the very rear of the gun, directly above the trigger. Apply **Bostik Seal N Flex FC** in a continuous operation using positive pressure adequate to properly fill and seal a cavity.

CONSTRUCTION ADHESIVE APPLICATIONS

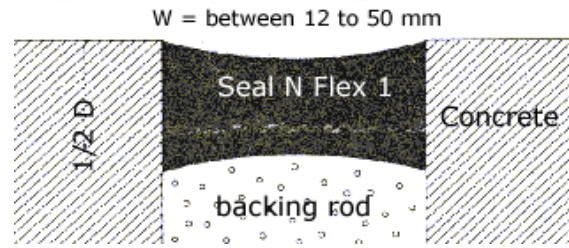
Bostik Seal N Flex FC does not need to be applied to both surfaces to be bonded, but both surfaces must be prepared in accordance with preparatory work. Apply in beads or daubs to the prepared substrate. Materials being adhered can be bonded immediately or left open for up to 15 minutes after application prior to bonding. If no mechanical fixing is to be used in conjunction with adhesive, clamping is necessary until full cure is achieved. Use only enough sealant to achieve adequate bond (dependant on surface texture). Excess sealant can be removed by dry cloth or solvent wipe before curing. If adhesive is to be exposed, smooth off with spatula or putty knife to flush finish.

CONSTRUCTION SEALANT APPLICATIONS

Bostik Seal N Flex FC is especially suitable for vertical joint sealing or in flooring applications such as saw cuts jointing. More joint movement can be accommodated in a thin bead of sealant than in a thick bead. The ratio of joint width of sealant to depth should be 2:1. The use of a bond breaker prevents undesirable three-sided adhesion. Open cell polyurethane foam or closed cell polyethylene foam rod is the recommended back up material to control correct sealant geometry. Install back up material or joint filler, as specified. Apply **Bostik Seal N Flex FC** continuously using positive pressure to properly fill and seal the joint. Tool the sealant with adequate pressure to spread the sealant against the back up material and onto the joint sides. Excess sealant should be wiped from all surfaces while still uncured. Remove any masking tapes prior to sealant curing.

JOINT SEALING HINTS

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



MIXING

No mixing is required, simply use directly from cartridge or sausage

COVERAGE

The coverage table below is approximate and is dependant on substrate conditions.

| Pack Size | Lineal Metres 5mm x 6mm joint | Lineal Metres 20mm x 10mm joint |
|------------------|----------------------------------|------------------------------------|
| 300 ml cartridge | 10 | 2.3 |
| 600 ml sausage | 20 | 4.4 |

Calculation formula $(W \times D \times L) / 1000 = \text{Litres}$

Litres / 0.3 = No of 300ml Ctgs

Litres / 0.6 = No of 600ml Sgs

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

IMPORTANT NOTES

- **Bostik Seal N Flex FC** should not be used in highly chlorinated areas such as swimming pools, spas etc.
- **Bostik Seal N Flex FC** should not be used in glazing applications subject to UV light radiation or direct sunlight exposure.
- **Bostik Seal N Flex FC** should not be applied or finished with wet tooling techniques, using solvents, water or detergent / soap solutions.
- **Bostik Seal N Flex FC** sealant should not be applied to unpredictable absorptive surfaces such as marble, limestone or granite unless a standard of appearance has been agreed on as a result of testing for stain and/or discolouration.
- **Bostik Seal N Flex FC** should not be applied onto or near any bitumen products.
- Do not use in interior or exterior structural sealing below the waterline in maritime applications.
- Do not apply at temperatures below 5°C or above 35°C.
- Do not apply to surfaces with special protective or cosmetic coating such as mirrors, reflective glass or surfaces coated with Teflon, polyurethane or polypropylene.
- Will not adhere to polyethylene, polypropylene or PTFE.
- **Bostik Seal N Flex FC** must not be applied less than 5mm in width or less than 6mm in depth.
- **Bostik Seal N Flex FC White** may yellow or discolour if exposed to UV Light for prolonged periods of time

PAINTABILITY

Bostik Seal 'N' Flex FC can be painted a minimum 7 days after application using water borne coating and most epoxy flooring systems. Coatings containing high solvent contents such as gloss enamels or high oil

based undercoats may cause the surface of the sealant to react creating a tacky surface to develop. A field test is recommended to ensure compatibility. To obtain best appearance and performance the paint must approximate the elongation capabilities of the sealant. High build coatings with some elastomeric ability such as quality acrylic emulsions have the capability to absorb low movement without significant distortion of the paint film.

BOSTIK CO-OPERATIVE TEST PROGRAM

Bostik offer a service in which a program has been established to eliminate potential field problems by pre-testing Bostik adhesives with samples of building materials to which the adhesive will be applied. This service is available on large projects where pre-application testing will aid in determining the proper surface preparation method to achieve optimum adhesion. Consult a Bostik representative for further information.

PROPERTIES

| | |
|---------------------------------|----------------------------------|
| Tack free time (minutes) | 45 minutes |
| Appearance | Non-sag smooth thixotropic paste |
| Cure System | Moisture Curing |
| Flammability | Non Flammable |
| Rate cure in mm/24h | 3.5 |
| Hardness Shore A | 50 |
| Colour | Grey, black and white |
| Potable water approval | AS4020 |
| Paintable approx. | 24 hours after application |

| | |
|------------------------------------|---|
| Service Chemical Resistance | Resistant to dilute acids & alkalis, some solvents intermittent contact with diesel and petroleum |
| Tensile Strength | 2.5 – 3.0 N/mm ² |
| Joint Movement ASTM C719 | ± 25% |
| Elongation at break | >400 % |
| Application Temp | 5°C to 35°C |
| Temp resistance | -40°C to +70°C |
| Full cure | 7 days |
| Acoustic properties | Excellent |

STORAGE & SHELF LIFE

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

SAFETY PRECAUTIONS

SEE THE MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.

EMERGENCY INFORMATION: 1800 033 111 (ALL HOURS)

MSDS can be downloaded from www.bostik.com.au

CLEAN-UP

The use of protective goggles, barrier creams and ointments, gloves, and protective clothing is recommended. Clean up uncured material and equipment immediately after use using **Bostik Handi Clean Towels**. Do not use towels on skin.

Cured material can be removed by mechanical means only.

PACKAGING

Bostik Seal N Flex FC is supplied in 380gm (300ml) cartridges and 720 gm (600ml) 20 per carton

VOC -78 g/Lt

voccertificates.australia@bostik.com

PRODUCT DETAILS

| ITEM NO | ITEM NAME | SIZE | COLOUR |
|---------|----------------|-------------------------|--------|
| 248673 | SEAL N FLEX FC | 380gm (300ml) CARTRIDGE | BLACK |
| 247235 | SEAL N FLEX FC | 380gm (300ml) CARTRIDGE | GREY |
| 248703 | SEAL N FLEX FC | 380gm (300ml) CARTRIDGE | WHITE |
| 248665 | SEAL N FLEX FC | 720gm (600ml) SAUSAGE | BLACK |
| 248227 | SEAL N FLEX FC | 720gm (600ml) SAUSAGE | GREY |
| 248681 | SEAL N FLEX FC | 720gm (600ml) SAUSAGE | WHITE |



The information in this Technical Data Sheet is intended for the assistance of purchasers and is of a general nature. It reflects the extent of our knowledge and experience of our products and is based on tests which we believe to be reliable. However, no guarantee of accuracy can be given due to the wide range of surfaces, environmental and field conditions and variations encountered in raw materials, manufacturing equipment and methods at the place where the work is performed. Some of these will be beyond our knowledge or control. We recommend purchasers carry out their own tests to determine the suitability of the product for their particular purposes. Bostik Australia Pty Ltd limits its liability to replacement of the products or refund of the purchase price, but this limitation does not affect consumers' rights which cannot by law be excluded.

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Quality endorsed ISO9001 (Thomastown site)
TS16949 (Automotive)

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