

technical data sheet

SEAL 'N' FLEX FC

Fast Cure Polyurethane Sealant / Adhesive

PRODUCT

Bostik Seal N Flex FC is a fast cure high performance one component polyurethane construction 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 weatherability 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 & Specialty panel systems
- Trafficable – Plats, stairs, roads, runways, aprons and pavements
- Vertical - Precast, Blockwork, aluminum, plasterboard, timber and most common building substrates.
- Pick resistant - Prisons, cells, schools and public amenities.
- Chemical resistant - Service stations, hangers, aprons and banded areas.
- Metal curtain wall facades
- Potable water tanks
- Sealing gaps and adhering 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 & BENEFITS

- 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 and sandable (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

PERFORMANCE PROPERTIES

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

TEST	RESULT
Appearance	Non-sag smooth thixotropic paste
Cure System	Moisture Curing
Tack free time (minutes)	45 minutes
Rate cure in mm/24h	3.5
Hardness Shore A	45 approx
Tensile Strength	>2.1 N/mm ²
Service Chemical Resistance	Resistant to dilute acids & alkalis, some solvents intermittent contact with diesel and petroleum
Elongation at break	>650%
Application Temp	5°C to 35°C
Temp resistance	-40°C to +70°C
Colour	Grey, black and white
Full cure	7 days
Potable water approval	AS4020
Acoustic properties	Excellent
Paintable approx.	24 hours after application

PACKAGING

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

COVERAGE

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

Pack Size	Lineal Metres 6mm Bead	Lineal Metres 20mm Bead
380gm ctg	10	2.3
720gm sge	19	4.4

APPLICATION INSTRUCTIONS

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

In non-fabrication applications Seal N Flex FC generally does not require priming. For maximum performance on porous surfaces use Bostik N49 Primer and/or Bondflex Primer. N40 Primer and 5077 cleaner / primer is recommended for non-porous surfaces. On applications involving glass, specially treated surfaces or critical structural fabrications consult Bostik for primer recommendations.

APPLICATION

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 Seal N Flex FC in a continuous operation using positive pressure adequate to properly fill and seal a cavity.

Construction Adhesive Applications

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/Adhesive Applications

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 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.

MIXING

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

PRECAUTION

- Seal N Flex FC is not recommended for use in sealing joints or bonding fabrications subject to constant immersion in seawater or where abrasion or physical abuse is encountered.
- Seal N Flex FC should not be used in highly chlorinated areas such as swimming pools, spas etc without prior consultation with Bostik Technical Services.

- Seal N Flex FC should not be used in glazing applications subject to UV light radiation or direct sunlight exposure without prior consultation with Bostik.
- Seal N Flex FC should not be applied or finished with wet tooling techniques, using solvents, water or detergent/soap solutions.
- 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.
- 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 watertline in marine applications.
- Do not apply at temperatures below 5°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.
- For wider joints, Bostik recommends Seal N Flex Trafficable (2 components polyurethane sealant)
- 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 as early as 24 hours 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. Please contact Bostik Technical Department if unsure of any paint system.

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

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.

HEALTH AND SAFETY

Avoid contact with skin and eyes.

Avoid overbreathing vapour and spray mist.

Wear overalls, safety shoes, impervious gloves and chemical goggles.

Use only in well ventilated areas. If inhalation risk exists wear organic vapour/particulate respirator.

No smoking.

Avoid contact with foodstuffs and sources of heat and ignition. All potential sources of ignition must be eliminated both in/or near the work area.

Wash hands thoroughly after use.

Store in a cool place and out of direct sunlight. Store away from water, alcohols, amines, acids and alkalis.

Keep containers closed when not in use.

Do not empty into drains.

FOR FIRE: If involved in a fire use water fog, foam or dry agents. Avoid breathing products of combustion.

HEALTH & SAFETY (Cont'd...)

FOR SPILLS: Clear area of all unprotected personnel. Slippery when spilt.

Wear protective equipment.

Absorb with sand or soil. Collect and seal in properly labelled drums. Refer to State/Territory Land Waste Management Authority for disposal.

FIRST AID: If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766).

SWALLOWED: If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

EYE: If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

SKIN: If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If irritation occurs seek medical advice.

INHALED: Remove from contaminated area. Apply artificial respiration if not breathing. Seek medical advice.

DO NOT REUSE CONTAINER UNLESS THOROUGHLY DECONTAMINATED. ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

EMERGENCY INFORMATION: 1800 033 111 (ALL HOURS)

CLEAN-UP

Clean up uncured material and equipment immediately after using Bostik 9907 solvent. Do not use solvents on skin. For removal on skin, uncured sealant can be removed with Bostik Hand-Clean towels. Cured Seal N Flex FC is difficult to remove via chemical means and mechanical means may be necessary.

STORAGE

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

FIRE

Seal N Flex FC is non-flammable.

SEAL N FLEX FC

Item No	Packaging Size	Colour
248673	380gm (300ml) cartridge	Black
247235	380gm (300ml) cartridge	Grey
248703	380gm (300ml) cartridge	White
248665	720gm (600ml) sausage	Black
248227	720gm (600ml) sausage	Grey
248681	720gm (600ml) sausage	White

The representations and recommendations regarding the products are based on tests which we believe to be reliable. However, no guarantee of their accuracy can be made because of the great range of field conditions and variations encountered in raw materials, manufacturing equipment and methods. Thus, the products are sold with a limited warranty only, and on the condition that purchasers will make their own tests to determine the suitability of the product for their particular purposes. Under no circumstances will Bostik Australia Pty Ltd be liable to anyone except for replacement of the products or refund of the purchase price.

ALL SALES ARE EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF SALE OF BOSTIK AUSTRALIA PTY LTD

FOR FURTHER INFORMATION



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