



# Seal 'N' Flex® One P390

## ONE COMPONENT, CLASS-A POLYURETHANE SEALANT

TECHNICAL SHEET 13/07/2023

### SMART ADVANTAGES

- Low modulus
- $\pm 50\%$  joint movement
- Excellent durability
- One component, no mixing required
- Acoustic rated
- Paintable\*
- Made in Australia

### DESCRIPTION

Bostik Seal 'N' Flex® One P390 is a low modulus, one component, Class-A polyurethane sealant. When cured it will form a tough and flexible seal capable of cyclic expansion and compression movement of 100% ( $\pm 50\%$ ) of the original installed joint width.

### USES

- Insitu concrete and render
- Precast and tilt up panels
- Brickwork and block work
- Plasterboard face and paper lined recessed edges
- Fibre cement sheet
- Aluminium windows\*
- GRC, fibreglass and mostly specialty panel systems

\*Must conduct P.A.T.S. (Pre-tested Adhesion to Substrate)

### APPROVALS/CERTIFICATIONS

- AS4020 Potable Water
- ASTM C.920-87 & 98 (USA) as Type S, Grade NS, Class 50, use NT, G, A, M, & O as an external joint sealant
- AS 2253 / 1276 Acoustic Rated



### PRODUCT CHARACTERISTICS

<b>Appearance</b>	7 colours available
<b>Viscosity</b>	Non-sag, smooth thixotropic past
<b>Cure method</b>	Moisture curing
<b>Coverage</b>	Refer to table
<b>Application temperature</b>	5 to 35°C
<b>VOC</b>	74g/L

### TYPICAL PERFORMANCE DATA

<b>Service temperature</b>	-40 to 75°C
<b>Tack free time</b>	6-12 hours
<b>Cure rate</b>	2mm/24 hours on porous substrates
<b>Full cure</b>	7 days on porous substrates Allow 14 days in joints over 20mm wide
<b>Specific gravity</b>	1.25 g/ml
<b>Shore A hardness</b>	30
<b>Tensile strength</b>	> 1.3 N/mm <sup>2</sup>
<b>Elongation at break</b>	> 900%

<b>Total joint movement</b>	± 50%
<b>Maximum joint width</b>	Up to 50mm

## USING SEAL 'N' FLEX® ONE P390

### TOOLS

Bostik Seal 'N' Flex® One P390 should be dispensed from either the cartridge or sausage by means of a caulking gun.

### PREPARATION

1. Clean and dry all surfaces by removing foreign matter and contaminants such as laitance oil, dust, grease, frost, water, dirt, old sealants, curing agents and any protective coating.
2. Dust and loose particles should be vacuum cleaned.

### Priming

Bostik Seal 'N' Flex® One Plus P390 adheres without the use of a primer to standard concrete or mortar, and bare Aluminium\*. Always conduct P.A.T.S. (Pre-tested Adhesion to Substrate) prior to application.

\*Aluminium coated panel has a protective coating (wax or plastic) on the surface of composite or cladding panels; therefore, check the compatibility of sealants. Doing this check beforehand is advisable.

**IMPORTANT:** For optimum adhesion and in areas of critical, high-performance applications such as high stress joints, extreme weather exposure, or surfaces that are too porous, the use of substrate primer is required.

### Porous Substrates:

1. Absorbent or porous substrates will allow a bead of water to easily soak into and wet out the surface of the substrate.
2. For maximum performance on porous surfaces and in all periodically immersed and submerged applications, use **Bostik N49 Primer** (refer to the **Bostik N49 Primer** Technical Data Sheet).
3. Porous substrates not subject to immersion or ponded water e.g., vertical expansion joints in concrete or masonry structures does not require priming if clean, dry, and uncontaminated.

### Non-Porous Substrates:

1. 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.
2. **Bostik N40 Primer** is recommended for non-porous plastic and metal substrates e.g., u-PVC outlets and pipe work, brass, copper fittings, stainless steel trays and flashings (refer to the **Bostik N40 Primer** Technical Data Sheet).

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3. Prime all plastics and metallic non-porous substrates with **Bostik N40 Primer** using the two-cloth method described in the **Bostik N40 Primer** Technical Data Sheet.

### APPLICATION

#### Cartridge Application:

1. Pierce the membrane at the top of the cartridge and screw on the nozzle.
2. Cut the nozzle to give the required angle and bead size.
3. Place the cartridge in a caulking gun and squeeze the trigger.

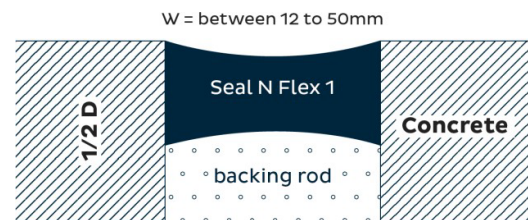
#### Sausage Application:

1. Clip the end of the sausage and place in a barrel gun.
2. Screw the end cap and nozzle onto the barrel gun.
3. Use the trigger to extrude the sealant. To stop; depress the catch plate.

Apply Bostik Seal 'N' Flex® One P390 in a continuous operation using enough pressure to properly fill the joint. Tool off the surface of the sealant with an appropriately 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:

- Always use a backing rod for correct sealant geometry and contact with the substrate
- Primer after the installation of the backing rod
- Ensure maximum adhesion to bond face
- Minimum allowable joint depth is 6mm
- Maximum allowable joint width is 50mm
- Depth to width ration of 1:1 up to 12mm width and 1:2 from 12-50mm width
- Tool sealant to achieve concave shape



### COVERAGE

The estimated lineal metre yield per pack size is recommended in the following table. No allowance has been made for waste or irregular joint geometry.

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Joint Size (DxW)	5 x 5 mm	10 x 10 mm	10 x 20 mm	25 x 50 mm
300ml cartridge	10	3	1.5	0.24
600ml sausage	20	6	3	0.48

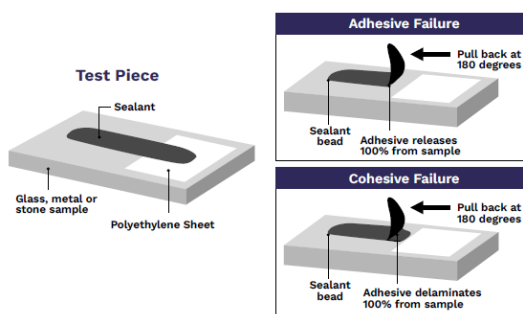
### PRE-TESTED ADHESION TO SUBSTRATE (P.A.T.S.)

Bostik offer a service in which to eliminate potential field problems by pre-testing Bostik sealants with building materials to which the sealant 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 Bostik Technical Department for further information.

### IN-HOUSE P.A.T.S. PROCEDURE

A simple bonding test can be done on a flat test surface e.g., concrete, aluminium etc. A test piece like that shown is recommended.

1. Clean the surface following the project-specific recommendations.
2. Place a piece of polyethylene sheet or bond breaker tape across the flat test surface.
3. Apply a bead of sealant and tool it to form a strip approximately 200mm long, 25mm wide and 3mm thick. At least 50mm of the sealant should be applied over the polyethylene sheet or bond breaker tape.
4. After cure of the sealant, pull the sealant perpendicular to the substrate until failure. Record the mode of failure of the test sealant.



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### CLEANING

The use of protective goggles, barrier creams and ointments, gloves and protective clothing is recommended. Cured material can be removed by mechanical means only. Clean off uncured material and equipment immediately after use using **Bostik Handy Wipe** towels to remove adhesive from skin.

### PAINTABILITY

Bostik **Seal 'N' Flex® One P390** can be painted after a minimum of 7 days. Coatings containing solvents such as enamels, oil based, or other coatings may cause the surface of the sealant to react creating a tacky surface. Surface coatings may discolour in direct contact with cured **Seal 'N' Flex® One P390**. Surface coatings may crack and craze as a result of cyclical movement of supporting sealant joint. A field test is recommended to ensure compatibility of any coating with **Seal 'N' Flex® One P390**.

### LIMITATIONS

Not recommended for:

- Use in chlorinated water such as swimming pools, spas, etc.
- Use on any material containing bitumen
- Constantly immersed salt water
- Use for glazing applications
- Application to cement based substrates within 28 days of initial pour or set
- Use in trafficable joints
- Applied in temperatures below 5°C or above 35°C
- Exposure to water and/or alcohol before it has completely cured
- Finished using wet tooling techniques, using solvents, water, or detergent/soap solutions
- Applied to joints less than 5mm in width and 6mm in depth
- Applied on joints larger than 50mm

Bostik **Seal 'N' Flex® One P390** WHITE may yellow on the surface if exposed to strong natural or artificial UV light for prolonged periods of time.

Composite metallic façade systems can be subject to significant daily cyclical movement due to temperature variations. Crimping and bulging of installed sealant before full cure may permanently deform the sealants finish prior to full cure, especially on Northern and Western elevations in full sunlight. **Refer to Bostik V70 Silicone** Technical Data Sheet as a recommended metal façade sealant.

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## STORAGE & SHELF LIFE

Store in cool (between 5°C to 30°C) dry, well-ventilated area out of direct sunlight. Store away from oxidizing agents and acids.

Shelf life is **12 months** in original unopened container.

Empty cartridges and foils may be disposed via local landfill. If spilt, absorb with clay, sand, or earth. Collect and seal in properly labeled metal container. Dispose of according to local authority regulations. Do not dispose of down drains or into local waterways.

## HEALTH & SAFETY

- Causes skin irritation
- May cause an allergic skin reaction
- May cause an allergy or asthmatic symptoms or breathing difficulties if inhaled.

Keep out of reach of children. Read label before use. Avoid breathing dust, fume, gas, mist, vapours, or spray. Wash hands, face, and all exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective clothing, gloves, eye/face protection and suitable respirator. In case of inadequate ventilation wear respiratory protection.

**Fire:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Spills and leaks:** Clear area of all unprotected personnel. Slippery when spilt. Wear protective equipment. Absorb with sand or soil. Collect and seal in properly labeled drums. Dispose of contents/container in accordance with local, regional, national, and international regulations.

If poisoning occurs, contact Poisons Information Centre.

## FIRST AID

**Swallowed:** Do not induce vomiting, give a glass of water, and seek medical advice.

**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.

**Eyes:** Hold eyes open and flood with water for at least 15 minutes and see doctor.

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For emergency information contact the Poisons Information Centre, phone 131 126 or the Emergency Response Service, phone 1800 033 111.

## PACKAGING

White	30840067	300ml
Grey	30803243	300ml
Black	30804581	300ml
White	30840033	600ml
Grey	30840034	600ml
Black	30840036	600ml
Off White	30800959	600ml
Epping Grey	30800963	600ml
Limestone	30840037	600ml
Sandstone	30840046	600ml

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