

## BOSTIK SEAL 'N' FLEX ONE PLUS P590 POLYURETHANE JOINT SEALANT



### PRODUCT DESCRIPTION

**Bostik Seal 'N' Flex One Plus P590** is a low modulus, bubble free curing, universal polyurethane sealant for construction and expansion joints. When cured it will form a tough and flexible seal capable of cyclic expansion and compression movement of +100%/-50%.



### ADVANTAGES

- Low modulus
- +100% / -50% joint movement
- Sag free, easy tooling
- Bubble free curing
- Extremely elastic, > 1,000% elongation at break
- Excellent durability
- UV resistant
- Paintable (Please refer to **PAINTABILITY NOTE**)
- Made in Australia



### AREAS OF APPLICATION

**Bostik Seal 'N' Flex One Plus P590** can be used on:

- Insitu concrete and render
- Aluminum Composite Materials
- Metal Cladding
- Fibre cement sheet
- Aluminium windows
- GRC, fiberglass and mostly specialty panel systems
- Precast and tilt up panels
- EIFS/ETICS
- Brickwork and block work
- Plasterboard face and paper lined recessed edges
- Granite, sandstone and marble

*Note: The product's design and performance, its intended use, installation and final confirmation and approval for use, must be provided by the project's Design Engineer and Project Manager.*



### CERTIFICATIONS

- ASTM C920
- ASTM C1248
- F-EXT-INT-CC 25LM : EN 15651-1 For Facade Joints
- EMICODE Ec1
- SNJF F25E



## PHYSICAL PROPERTIES

PROPERTY	RESULT
Colour	Grey, White, Black, Limestone, Sandstone, Off-White, Epping Grey
Viscosity	Non-sag, smooth thixotropic paste
Cure method	Moisture curing
Application temperature	+5°C to +40°C
Temperature resistance	-30 to +80°C
Skin time	90 minutes
Cure rate @ 23°C/50% RH	3mm/24 hours on porous substrates
Full cure	7 days on porous substrates. Allow 14 days in joints over 20mm wide.
Specific gravity	1.30 g/ml
Shore A hardness	20
100% Modulus	0.30 N/mm <sup>2</sup>
Tensile strength	1.20 N/mm <sup>2</sup>
Elongation at break	1000%
Total joint movement	+100% / -50%
Maximum joint width	Up to 80mm



## INSTALLATION PROCEDURES

### ► DIRECTION FOR USE

Read and understand the Safety Data Sheet before using this product.

### ► SURFACE PREPARATION

Application temperature + 5°C to + 40°C (applies to environment and substrates). 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. Dust and loose particles should be vacuum cleaned.

### ► PRIMING

**Bostik Seal 'N' Flex One Plus P590** adheres perfectly without the use of a primer to most porous & non-porous substrates. Always test adhesion prior to application.

**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 will 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).
3. Prime 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

**Bostik Seal 'N' Flex One Plus P590** should be dispensed by means of a chaulking gun. Clip the end of the sausage and place in a barrel gun. Screw the end cap and nozzle onto the barrel gun. Use the trigger to extrude the sealant. To stop; depress the catch plate. Apply **Bostik Seal 'N' Flex One Plus P590** in a continuous operation using enough pressure to properly fill the joint. Tool off the surface of the 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

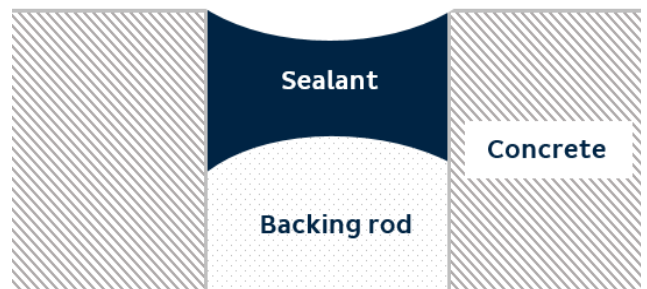
## ➤ JOINT SEALING

A joint with the correct dimensions is able to absorb movements between building materials. Always use a backing rod for correct sealant geometry and contact with the substrate. - Prime after the installation of backing rod

- Ensure maximum adhesion to the bond face
- Minimum allowable joint depth is 5mm
- Maximum allowable joint width is 80mm
- Tool sealant to achieve concave shape

## ➤ JOINT WIDTH TO DEPTH RATIO

Width	Depth
Min 5mm to 10mm	1:1 ratio  i.e. A 10mm width will require 10mm depth
>10mm, up to 80mm	Depth (mm) = $\frac{\text{Width (mm)}}{3} + 6$  i.e. A 16mm joint width will require a 12mm depth: Depth (mm) = $\frac{16}{3} + 6 = 12\text{mm}$



## 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.

Joint (WxD)	5mm x 5mm	10mm x 10mm	20mm x 10mm	50mm x 25mm
600ml sausage	24	6	3	0.48

W = Joint width (mm), D = Joint depth (mm)

## LIMITATIONS

**Bostik Seal 'N' Flex One Plus P590** is not recommended for:

- Use in chlorinated water such as swimming pools, spas, etc.
- PE, PP, PC, PMMA, PTFE, soft plastics, neoprene and bituminous substrates
- 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 40°C
- Exposure to water and/or alcohol before it has completely cured
- Applied to joints less than 5mm in width and depth
- Applied on joints larger than 80mm
- **Bostik Seal N Flex One Plus** White may yellow on the surface if exposed to strong natural or artificial UV light for prolonged periods of time.

As all substrates and conditions are different, it is strongly recommended that the applicator, or end user conducts their own tests and ensure the product meets their own end use requirements



## PAINTABILITY

**Bostik Seal 'N' Flex One Plus P590** 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 **Bostik Seal 'N' Flex One Plus P590**. 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 **Bostik Seal 'N' Flex One Plus P590**.



## PACKAGING

**Bostik Seal 'N' Flex One Plus P590** is supplied in 600ml sausages, and packed in 20 pieces per carton.



## CLEANING

Clean off uncured material, hands and equipment immediately after use using Bostik Handy Wipe towels. Cured material can be removed by mechanical means only.



## STORAGE & SHELF LIFE

Store in cool (between 5°C to 25°C) dry, well-ventilated area out of direct sunlight. Shelf life is 15 months from production date in original unopened packaging and correct storage conditions.



## HEALTH AND SAFETY INFORMATION

In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator should be used, and the advice and approval of the Site Safety Supervisor is essential. For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Safety Data Sheet (SDS), which is available upon request.



## DISCLAIMER

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability of, or fitness for, particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advice offered by the Company. The Company also has no express or implied knowledge of any particular purpose for which the product is required and any such information given will not be taken into account in the supply of this product. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in our brochure may change at any time without notice. Any use of this product, **Bostik Seal 'N' Flex One Plus P590**, in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

**Effective Date: 15 APRIL 2022**

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