

## Technical Data Sheet ISSUED APRIL 2018

### **PRODUCT DESCRIPTION**

WPA 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.

WPA 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 PROCEDURE**

#### **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
- 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**

1. Bostik N40 Primer is recommended for non-porous plastic and metal substrates
2. Prime all plastics and metallic non-porous substrates with Bostik N40 Primer using the two-cloth method described below
3. 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 nonporous 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 WPA FC
- Do not leave the primer longer than 4 hours before applying sealant/adhesive

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- Re-prime if 4 hours has elapsed without applying sealant/adhesive
- Clean and re-prime if the primed surface is contaminated before WPA FC is applied.

### Application

WPA 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 Bayset). 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 Bayset extrusion gun and press the trigger.

For sausages, a barrel gun is required, this is available from Bayset. Clip the end of the sausage and place complete sausage with pierced end located at the top of the nozzle and 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 WPA FC in a continuous operation using positive pressure adequate to properly fill and seal a cavity.

### Construction Adhesive Applications

WPA 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

WPA 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 WPA 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 the sausage.

### Coverage

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

Package size	5mm x 6mm joint	20mm x 10mm joint
600ml sausage	20 lm	4.4 lm

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

$\text{Litres} / 0.6 = \text{No of 600ml Sgs}$

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

### Construction Adhesive Applications

- WPA FC should not be used in highly chlorinated areas such as swimming pools, spas etc.
- WPA FC should not be used in glazing applications subject to UV light radiation or direct sunlight exposure
- WPA FC should not be applied or finished with wet tooling techniques, using solvents, water or detergent / soap solutions
- WPA 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
- WPA 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
- WPA FC must not be applied less than 5mm in width or less than 6mm in depth
- 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.

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### Paintability

WPA FC can be painted a minimum of 24 hrs 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.

### 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
Service Chemical Resistance	Resistant to dilute acids & alkalis, some solvents intermittent contact with diesel and petroleum
Tensile Strength	2.5 – 3.0 N/mm <sup>2</sup>
Joint Movement ASTM C719	± 25%
Elongation at break	>450 %
Application Temp	5°C to 35°C
Hardness Shore A	50
Colour	Grey
Potable water approval	AS4020
Paintable approx.	24 hours after application
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.bayset.com.au](http://www.bayset.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

WPA FC is supplied in 720 gm (600ml) sausages, 20 per carton

### VOC -78 g/Lt

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### **WARRANTY CONDITIONS**

Waterproofing Products Australia (WPA) warrant this product for 10 years provided the application is in accordance with our written directions for use and the relevant Australian Standards have been followed. The representations and recommendations regarding this product are based on tests which we believe to be reliable. However, no guarantee of their accuracy can be made due to the great range of field conditions and variations encountered in raw materials, manufacturing equipment and methods. Thus, this product is sold with a limited warranty only, and on the condition that purchasers will carry out their own tests to determine the suitability of the product for their particular purposes. Under no circumstances will Waterproofing Products Australia be liable to anyone except for replacement

### **IMPORTANT**

The information provided in this technical bulletin is as correct in detail as possible and is intended to give a fair description of the product and its capabilities. In practice, the substrate and environmental conditions vary widely, making it essential for the user to determine the products suitability for a particular application and that the product is not used beyond its physical limitations. The product is guaranteed provided it is applied in accordance with our instructions as stated in this data sheet and any relevant Standard or Code, and provided the building and installation is structurally sound. WPA terms and conditions of sale apply.

### **STATEMENT OF RESPONSIBILITY**

The technical information and application advice given in this WPA publication is based on the present state of our best scientific and practical knowledge. As the information contained herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness, either expressed or implied, is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### **\*NOTE**

Field service where provided does not constitute supervisory responsibility. Suggestions made by WPA either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not WPA, are responsible for carrying out procedures appropriate to a specific application.

DOCUMENT CONTROL	
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This is a CONTROLLED document under WPA's Quality System.