

## Technical Data Sheet ISSUED JULY 2019

### PRODUCT DESCRIPTION

**WPA MS** is a single component, moisture cured silane modified hybrid sealant. **WPA MS** is free of solvents and isocyanates, with a very low VOC content. When cured it forms 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 MS** is virtually unaffected by normal weathering conditions such as rain, sunlight, snow, sleet, ultra-violet radiation, ozone, atmospheric contamination and pollution. Its excellent weathering ability enables it to retain its original properties after years of exposure. Its physical properties remain relatively unchanged over a wide service temperature range (-50°C to 120°C).

Recommended uses:

- Sealing/bonding in the building and construction industry.
- Construction and expansion joints.
- Perimeter sealing around doors and windows frames.
- Sealing precast panels, brick and block work, granite, sandstone, marble, plasterboard, ceramics and most other common building substrates.
- Other substrates including aluminium, steel, glass, dry timber, PVC.
- Bond breaker/fillet sealant for use with selected waterproofing membranes from the WPA product range.
- **Note: Adhesion test of the substrate is recommended prior to proceeding with the project application.**

### FEATURES

- Fast tack-free time and cure rate.
- High bond strength.
- Good adhesion to porous and non-porous substrates, including metals, concrete, brick, wood, plasterboard, GRC & CFC.
- A medium modulus product, which forms a resilient and permanently elastic seal.
- Good weathering / UV resistance and colour stability.
- Resistant to fungal attack.
- One component, no mixing required.
- High movement accommodation ( $\pm 25\%$ ) ASTM C719.
- Suitable for damp substrates.
- Does not support fungal growth.

### APPLICATION PROCEDURE

#### **Surface Preparation**

All substrates should be clean of all foreign matter and contaminants such as surface dirt, dust, grease, oil, frost, water, old sealants and any protective coating. Dust, loose particles, etc. should be blown out of joints with oil free compressed air or vacuum cleaned. If necessary, rub down metal surfaces beforehand. Clean the substrates after rubbing down. Allow the substrate to dry after cleaning/degreasing. Most metal surfaces can be cleaned by IPA or MEK. **WPA MS** has excellent adhesion to most common substrates: all usual building substrates, natural stone, treated wood, PVC, Plastics.

#### **Priming Porous Substrates**

- Priming of porous substrates is not normally required, however, adhesion tests are recommended prior to proceeding.

#### **Priming Non Porous Substrates**

- Metal substrates must be free of all rust, scale or oxide film.
- Clean all plastics and metallic non-porous substrates with MEK or Isopropyl alcohol, using the two-cloth method described below. E.g. UPVC outlets and pipe work, brass, copper fittings, stainless steel trays and flashings, PVC, ABS, Polyamide, fibreglass, polyester.

#### **Two Cloth Method – Solvent Wipe**

- Dampen a clean and dry cloth with MEK or IPA and spread evenly over the nonporous substrate using a cleaning/rubbing action.
- With a second clean and dry cloth, immediately wipe all solvent residues off with a buffing action.
- Allow the substrate to dry for a minimum of 5 minutes before installing **WPA MS**.
- Repeat the above process if the surface is contaminated before **WPA MS** is applied.

#### **Application**

**WPA MS** when used as an adhesive or sealant should be dispensed from the sausage by means of a hand or air operated caulking gun designed for such application. 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 MS** in a continuous operation using positive pressure adequate to properly fill and seal a cavity.

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### Construction Adhesive Applications

**WPA MS** 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 MS** is especially suitable for vertical joint sealing. 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, however, in all cases, the sealant must be no wider than 30mm or deeper than 5mm. 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 MS** 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.

### Bond Breaker/Fillet Sealant

Apply **WPA MS** to the transition as required and tool of to form a 12 – 15mm wide cove.

### 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	10mm x 5mm joint	30mm x 5mm joint
600ml sausage	12 lm	4.0 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)

### Important Notes

**WPA MS** should not be used:

- In highly chlorinated areas such as swimming pools, spas etc.
- As a glazing sealant.
- To green masonry surfaces. (28 day cure is required)
- At temperatures below 5°C or above 35°C.
- To polypropylene, polyethylene or polycarbonate.
- Onto or near any bituminous products.
- In constantly immersed application without first priming with WPA SB Primer.

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

**WPA MS** can be painted after full cure using water borne coating 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.

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### Typical Properties

Tack free time (minutes)	30 minutes @ 23°C, 50%RH
Appearance	Non-sag smooth thixotropic paste
Cure System	Moisture Curing
Flammability	Non Flammable
Rate cure in mm/24hrs	3.0mm
UV Resistance	No change (dry UV 300w 25cm distance to specimen 6 weeks test)
Tensile Strength	1.2MPa
Joint Movement ASTM C719	± 25%
Elongation at break	>400 %
Application Temp	5°C to 35°C
Hardness Shore A	32
Colour	Grey
Suitable joint width	5 – 30mm
Paintable approx.	After full cure
Service Temperature	-50°C to +120°C
Full cure	7 days
Acoustic properties	Excellent

### Storage & Shelf Life

Store between 10°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.waterproofingproductsaustralia.com.au](http://www.waterproofingproductsaustralia.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 Aftek Handy Clean Towels. Do not use towels on skin. Cured material can be removed by mechanical means only.

### Packaging

WPA MS is supplied in 600ml sausages, 20 per carton.

### 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	
Product	WPA MS
Initial Issue	July 2019
Author	FM

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