

MS601

MACFLEX

Polyurethane Hybrid

Technical Data Sheet

DESCRIPTION

Macflex MS601 Hybrid Polyurethane Sealant is a premium-grade, low modulus, elastomeric sealant specifically engineered for flexible joint applications across a wide range of construction and industrial environments. Combining the best properties of polyurethane and silicone technologies, this advanced hybrid formulation offers superior flexibility, strong adhesion, and outstanding durability, making it ideal for high-movement joints and dynamic substrates.

Formulated without isocyanates, solvents, or other hazardous raw materials, it provides a safer, environmentally friendly solution with very low odour during application and curing. The sealant demonstrates excellent resistance to weathering, UV exposure, and environmental pollutants, ensuring long-term performance without cracking, shrinking, or discoloration.

APPLICATIONS

All construction, industrial, and marine, and automotive sealing & bonding applications where high adhesive strength and good weatherability is required, such as:

- Waterproofing
- Concrete joints
- Metal construction
- Timber assembly / bonding
- Automotive sealing / bonding

Expansion joints between many different construction materials, including pre-cast concrete panels

Bonding of roof tiles; other bonding/sealing applications in roofing/ gutters/ spouts.

Sealing & bonding of HVAC, ventilation ducts and others.

Substrates:

- Aluminium
- Brick
- Masonry
- Ceramics
- Glass
- Stone
- Metals
- Porcelain
- PVC
- Wood

PRODUCT CHARACTERISTICS

Colour	Black; Grey; White
Appearance	Thixotropic Paste
Base	Hybrid Polyurethane
Curing Method	Moisture curing
Service Temperature	-40°C to +90°C
Product Codes 600mL Sausage	Black : 53PMSPSB Grey: 53PMSPSG White: 53PMSPSW

TYPICAL PROPERTIES

Movement Capability	25%
Elongation @ Break	≥ 450% (DIN 53504)
Skinning Time	10-15 Mins. (at 23°C/50% RH)
Cure Rate	Min. 2.5mm per day
Shore A. Hardness	45 ±5 (ISO 868)
Specific Gravity	1.62
Tensile Strength	1N/mm ² (DIN 53504)
Sagging	0mm (ISO 7390)
Shrinkage	<2% (ISO 10563)
Application Temperature	+5°C to +40°C
Paintability	Good

ADVANTAGES

- Very high adhesive strength on almost all materials – can be used as an adhesive
- Permanent elasticity
- Very good resistance against UV, rain, water, and other weather elements
- No sagging; no shrinkage
- No surface tackiness after full cure; does not pick up dirt
- No bubble formation, even in wet and humid conditions
- Easy one-component application
- Paintable
- Does not contain solvents, silicones, or isocyanates
- Very low VOC

INSTRUCTIONS FOR USE

Read and understand the Safety Data Sheet before using this product.
SDS can be acquired by visiting www.macsim.com.au.

Surface Preparation

Substrate surface must be dry and clean; free of dirt, grease, oil, or standing water.

Applications Instructions

1. Cut the tip of the sausage carefully and slip it into the caulking gun.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Place the nozzle into the caulking gun and screw tight.
4. Extrude the sealant with a single bead.
5. Tool the sealant bead with a clean and dry tool within the working time for a smooth finishing.

Limitations

- Avoid applications below +5°C and above +40°C
- Not suitable for food contact applications.
- This product requires atmospheric moisture to cure

Joint Size

- Min. width 5 mm
- Min. depth 5 mm
- Recommendation 2 x joint width = joint depth

Shelf Life

12 months shelf life when stored in a dry and cool place with temperature around +10°C to +25°C.

HEALTH & SAFETY

Safety

If poisoning occurs, contact Poisons Information Centre: Australia: 13 11 26; New Zealand: 0800 764 766.

For more information and advice on the safe handling, storage and disposal of this product refer to the Safety Data Sheet. The can be acquired by visiting www.macsim.com.au

DISCLAIMER

The information in this Technical Data Sheet (TDS) is based on our present knowledge to the date of the publication. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. It is only a guide for safe handling, use, storage, transporting and disposal of the product.

TECHNICAL DATA SHEET

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