



RUBSON

MS3 Polymer

High modulus weathering resistant sealant & adhesive

CHARACTERISTICS

All purpose, one-part, elastic joint sealant and multipurpose adhesive for indoor and outdoor applications based on Flextec® - Technology.

- Good elasticity - movement capability 20%
- Excellent adhesion to a wide range of construction materials without primer
- High initial tack
- Tack-free surface
- Can be applied to damp surfaces without bubbling or losing adhesion (unlike PU sealants).
- Very good UV-, weather and ageing resistance, color stability – no surface cracking or crazing or yellowing
- Phthalate-free
- Silicone-free
- Free of hazardous isocyanates
- Solvent free
- Non-corrosive
- Good gunnability even at low temperatures
- Nearly no shrinkage during curing
- Good compatibility with paints – can be painted over after curing
- Impact and vibration absorbing

APPLICATION FIELD

RUBSON MS3 Polymer bonds well on a wide variety of substrates and is recommended for use in elastic sealing and bonding applications:

- Connection joints, e.g. joints between wood/aluminium/PVC-window or door frames and brickwork, for stairs, balconies, terraces, soundproofing of pipes between concrete and sheathing and many more.
- Bonding of tiles
- Filling/sealing of cracks
- Sealing and bonding of metal or plastic elements such as flashings, copings, engravings, cladding elements, drip-edges, water-return profiles
- Joints and seam seals in metallic construction
- Joints in ventilation & air-conditioning ductwork

STANDARDS

EN ISO 11600	Class F-20HM, sealant for building construction
EN 15651-1 (CE marking)	Class 20HM, product type F-EXT-INT: sealant for facade for interior and exterior application
GEV EMICODE®	EC 1 ^{plus} (very low emissions)
VOC emission class	Class A+

INSTRUCTIONS FOR USE

Application

RUBSON MS3 Polymer is supplied ready to use and can be applied from the cartridge using a standard air or hand operated gun, with no special pre-treatment.



Sealing application

The joint width must be designed to suit the movement capability of the sealant. In general the joint width must be > 10 mm and < 35 mm. A width to depth ratio of ~1:0.5 must be maintained. For crack repair, open the crack to a minimum of 5 mm in width and depth using appropriate tools, remove all loose material, brush thoroughly and dust off the surface. If required, apply a compatible primer or surface fixer and allow it to dry completely.

Before sealing large joints, ensure that all weak or poorly adhering areas have been consolidated or repaired prior to application. After joint and substrate preparation, insert backing rod (closed cell, PE-foam backing rods) to required depth and apply primer if necessary. Insert cartridge into sealant gun and firmly extrude RUBSON MS3 Polymer into joint making sure that it is in full contact with the side of the joint. Fill the joint, avoiding air entrapment. RUBSON MS3 Polymer must be tooled firmly against joint sides to ensure good adhesion.

Masking tape must be used where sharp exact joint lines or exceptionally neat lines are required. Remove masking tape immediately after smoothing the joint and before skin formation.

After application, the product can be smoothed with soapy water before skinning for a perfect sealant surface. You can use a slightly wetted spatula to form a slightly concave meniscus; this improves the sealant's ability to accommodate movement.

For crack repair, cracks must be opened using a triangular scraper or grinder to obtain a minimum profile of 5 x 5 mm. Remove all dust and contaminants, and if necessary prime the surface according to substrate requirements. Fill the crack with MS3, level the product with a spatula, and smooth immediately.

Bonding application

After substrate preparation apply RUBSON MS3 Polymer in strips or spots on the bonding surface at intervals of a few centimeters. Use hand pressure to set the element to be bonded into position. If necessary, use adhesive tape, wedges, or props to hold the assembled elements together for the initial hours of curing. An incorrectly positioned element can be easily unfastened and repositioned in the first few minutes after application. For heavy elements or for vertical and overhead bonding, temporary mechanical support must be provided until full curing is achieved. Apply pressure again. Optimum bonding will be obtained after complete curing of RUBSON MS3 Polymer, i.e. after 24 - 48 hours at 23°C for a thickness between 2 - 3 mm.

Cleaning tools

Clean tools and application equipment with white spirit immediately after use. Cured material can only be removed mechanically (e.g. with knife). Fresh sealant can also be removed using a dry cloth or a cloth lightly soaked in a compatible solvent.

TECHNICAL DATA

Uncured

Chemical base	Flextec®-Polymer(Moisture curing silane modified polymer (SMP) - cures by reaction with atmospheric humidity.)	
Odour	Alcohol	
Application temperature, °C	5 - 40	(substrate and ambient)
Consistency	Non-slump paste	
Density, g/ml	~ 1.39	(ISO 2811-1)
Resistance to flow, mm	~ 0	(ISO 7390)
Skin formation time, minutes	~ 20	(23°C, 50% r.h.)
Curing speed, mm/hours	~ 2/24	(23°C, 50% r.h., bead 20x10mm)
Initial tack, g/cm ²	~ >10	

Cured

Odour	Odourless	
Shore A hardness	~ 40	(ISO 868)
100% Modulus, N/mm ²	~ 0.7	(ISO 8339-A)
Tensile strength, N/mm ²	~ 0.9	(ISO 8339-A)
Elongation at break, %	~ 250	(ISO 8339-A)
Elongation at break, %	~ 310	(ISO 8339-B)
Elastic recovery, %%	~ 85	(ISO 7389-B)
Shrinkage, %	~ -3	(ISO 10563)
Movement capability, %	20	(ISO 11600-F)
Recommended joint width, mm	10 - 35	
Service temperature, °C	-40 - 80	



LIMITATIONS

- RUBSON MS3 Polymer may only be painted over if the coating is able to follow the movements of the sealant (generally if joint movements are < 5%, depending on the coating); otherwise, cracks may occur in the surface of the coating.
- RUBSON MS3 Polymer should only be overpainted on joints subject to high movement if the coating overlaps the sealant on the joint sides by a maximum of 1 mm.
- RUBSON MS3 Polymer should be tested for compatibility with the selected coating system prior to application, especially in the case of alkyd resin paints.
- RUBSON MS3 Polymer, when painted over, may cause alkyd resin paints to dry slowly and to exhibit surface tackiness and/or discolouration.
- RUBSON MS3 Polymer requires a preliminary adhesion test when applied on powder-coated substrates (e.g. powder-coated aluminium window frames).
- RUBSON MS3 Polymer must not be used as a glazing sealant.
- RUBSON MS3 Polymer must not be used on bituminous substrates or on building materials that may bleed oils, plasticisers or solvents which could attack the sealant.
- RUBSON MS3 Polymer is not suitable for joints subject to water pressure or permanent water immersion (e.g. swimming pools).
- RUBSON MS3 Polymer must not be used to seal bathtubs or washbasins.
- RUBSON MS3 Polymer is not recommended for use on copper and brass.
- RUBSON MS3 Polymer is not suitable for natural stones (e.g. marble).
- RUBSON MS3 Polymer may show colour deviations, for example due to exposure to chemicals or high temperatures; however, such changes do not usually adversely affect the technical performance or durability.
- RUBSON MS3 Polymer may only be used for mirror bonding if the mirror coating and the protective lacquer comply with EN1036-1; for unknown mirror qualities, approval should be obtained from the mirror manufacturer.

GENERAL INFORMATION

Surfaces

The substrates to seal or bond must be clean, free from oils, grease, dust and loose particles and should be dry. Standing water should be removed. Remove residues of old sealant/adhesive. Use acetone, spirit, isopropanol or special cleaners to remove residues of oils or grease. The product is suitable for many types of construction materials: concrete, brick, tile, ceramics, fibre-concrete, galvanized steel, stainless steel, iron, painted metals, lacquered aluminium, anodized aluminium, wood, melamine, PVC etc. No adhesion to PE, PP, PTFE (Teflon®), PMMA (acrylic glass). In cases of unknown materials or critical applications adhesions tests are recommended or contact our Technical Service.

Storage

12 months from date of production if stored in unopened original cartridges, in dry conditions and protected from direct sunlight at temperatures between 10 - 25°C.

Chemical resistance

Resistant to water, seawater, diluted alkalis, diluted acids, cement grout and water diluted detergents. The product is not recommended for applications with permanent contact with chemicals. Poor resistance to aromatic solvents, organic acids, concentrated alkalis and concentrated acids, chlorinated hydrocarbons. In cases of other chemicals contact our Technical Service.

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HEALTH AND SAFETY

Before using the product please see related Safety Data Sheet that is available on request at 09 69 32 09 30 or on our website <https://mysds.henkel.com/index.html>.

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

