

MASTER EX PU

ADVANCED ONE COMPONENT POLYURETHANE SEALANT

DESCRIPTION

MASTER EX PU is a one component advanced polymer system, gun - grade, non - sag, moisture - cure sealant designed to skin and cure rapidly. This high performance product is designed with outstanding UV resistance and long term durability.

USES

- Sealant is designed to seal construction joints.
- To seal waterproof rivet seams and roof rails.
- To seal Perimeter joints around windows and doors.
- Sealing corner moldings, fabricated roof-lap seams, bumper assemblies and body-to-cab joints In motor homes.
- Sealing door hinges, skylights and pot holes.
- Sealing Air conditioning equipment, flashing and gutters.

FEATURES

- Paintable
- Odour less
- Low VOC
- UV Resistant
- Fast Curing
- Excellent adhesion without priming
- Highly resistant to sea water, diluted acids and alkalis.
- Trafficable - recommended application as 2:1 with a limitation of 25mm width and 12mm depth.

ADVANTAGES

- Excellent weatherability
- Permanently flexible
- Easy to gun and tool
- Cures to a tough, durable, elastic finish
- Non-sticky after cure
- Single component & Convenient Packing

TECHNICAL SPECIFICATIONS

Physical Properties	Test Method	Typical Value
Specific Gravity @ 25 °C, g/ml	ASTM D1475	1.40 – 1.44
Skin over time @ 25 °C, Minutes	-	10 - 25
Tack Free Time @ 25 °C, Minutes	ASTM C679	30 - 50
Flow (sag or slump)	ASTM C639	Non-Sag
Depth cure per day, mm	-	<2
Shrinkage, %	-	<5
VOC, (g/L)	USEPA Method 24	< 25
Tensile Strength, N/mm ²	ASTM D412	1 – 1.5
Elongation at break , %	ASTM D412	600-700
Hardness : Shore A	ASTM D2240	25 - 30
Joint Movement Capability, %	ASTM C920	±50
Peel Strength on concrete, N	ASTM C794	>30

TECHNICAL SPECIFICATIONS

Physical Properties	Test Method	Typical Value
Effects of Accelerated Ageing @ 300 hrs. UV exposure	ASTM C793	No deterioration
Application Temperature (°C)	-	+5 to +40
Service Temperature, (°C)	-	-20 to +80

COLORS

White, Off-white, Grey, and Black. For other colour please contact us.

EXPANSION JOINT DESIGN

MASTER EX PU may be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be at least 4 times anticipated movement, and not less than (5mm).

While applied on an expansion joint the depth (D) of the sealant should be equal to the width (W) of the joints that are less than 10mm wide. For wider joints, width to depth ratio should be 2: 1.

The maximum width of the joint on which **MASTER EX PU** can be applied is 25mm.

JOINT BACKING

Closed cell polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint is insufficient for the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at the time of sealant application. Avoid using sharp tools.

YIELD

The following formula is an approximate guideline to calculate foreseen yield for a standard 600ml sausage of **MASTER EX PU**.

$$L = 600 / (W \times D)$$

Where: L = Length of sealant in meters obtained per cartridge.

D = Depth of the joint in mm

W = Width of the joint in mm

Meter per 600 ml

Joint Width (mm)	10	12	15	20	25
Joint Depth (mm)	6	8	8	10	12
Joint Length (m)/600 ml	10	6.2	5	3	2

APPLICATION DETAILS

SUBSTRATE PREPARATION

Surfaces must be sound, clean, and dry. All release agents, dust, loose mortar, laitance, paints, or other loose particles must be removed. This can be accomplished with a thorough wire brushing, sanding, or solvent washing, depending on the contamination. MASTER EX recommends that surface temperatures be below 40°C at the time the sealant is applied.

PRIMING

MASTER EX PU typically adheres to common construction substrates without primers; however, mockup or field adhesion test can be performed on the actual materials being used on the job to verify the need for a primer.

APPLICATION

MASTER EX PU is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly. Mask the sides of the joint with masking tape prior to filling for a cleaner finish. Fill the joint completely with a proper width-to-depth ratio and tool to ensure intimate contact of sealant with joint walls. Dry tooling is always preferred, although xylene can be used in limited amounts to slick the spatula if needed following the initial dry tooling.

CLEAN UP

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits.

FOR OPTIMUM PERFORMANCE

- In cool or cold weather, store container at room temperature for at least 24 hours before using.
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant however, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Proper application is the responsibility of the user. Field visits by MASTER EX personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Note:

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields. Information on this datasheet is subject to change without notice and should not be used for writing specification. For additional information on specific applications, please contact MASTER EX. The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet super sedes all previous editions relevant to this product. MASTER EX reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Product of:



PACKAGING

300 ml cartridge, 24 cartridges per carton. 600ml sausage, 20 sausages per carton.

LIMITATIONS

- Do not apply over damp or contaminated surfaces.
- Do not use **MASTER EX PU** as a structural (load - transferring) sealant.

STORAGE AND SHELF LIFE

MASTER EX PU has a shelf life of 12 months when stored in tightly closed original casks, in a dry place at a temperature between +5°C and +25°C.

CURING TIME

MASTER EX PU generally cures at a rate of 2 mm per day at 25°C and 50% relative humidity. Lower temperatures and humidity will extend curing time.

HEALTH AND SAFETY

Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection if the TLV is exceeded or used in a poorly ventilated area. Always utilize the accompanying SDS for information on Personal Protective Equipment (PPE) and health hazards.

Tel.: + 971 566 2077 58
E-mail: info@master-ex.com
Web.: www.master-ex.com