



IMPERVIOUS WATERPROOFING®

TECHNICAL DATA SHEET

IMPESEAL™ MP

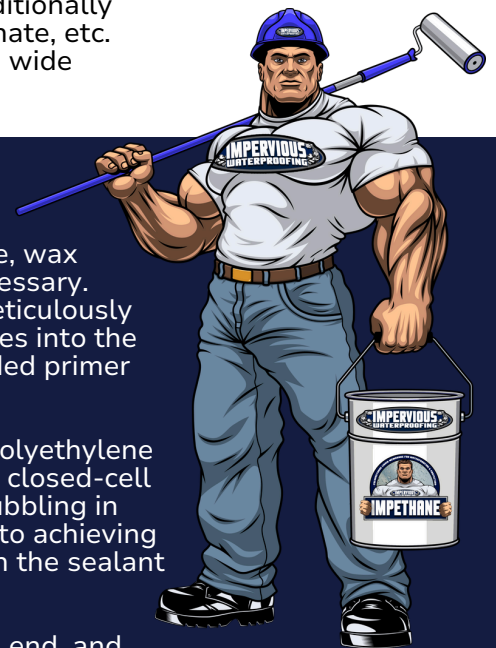
IMPESEAL™ MP is a single-component, low modulus joint sealant based on polyurethane, well-suited for applications in elevated humidity conditions. An innovative low modulus expansion joint sealant, specifically designed to ensure a bubble-free cure, even in extremely high-temperature and humidity conditions. This product exhibits excellent thixotropy, allowing for its application in very large expansion joints. It undergoes curing through reaction with atmospheric humidity, resulting in a joint sealant with the **ability to accommodate joint movement up to 50% of the joint width**, and an outstanding adhesion on substrates traditionally challenging for PU sealants. Such as glass, aluminium, steel, polycarbonate, etc. The extrusion rate and tooling of the sealant remain consistent across a wide range of temperature and humidity conditions.

APPLICATION

Thoroughly clean the joint, making sure there are no traces of oil, grease, wax contaminants, or silicone residue. In many cases, primer may not be necessary. However, when dealing with highly porous substrates, it is crucial to meticulously prepare bond surfaces to prevent the potential introduction of air bubbles into the uncured sealant during a rise in substrate temperature. The recommended primer for such cases is IMPEPRIME™ MP.

Apply backing material, such as open-cell polyurethane or closed-cell polyethylene backing rod. While both types are suitable, exercise caution when using closed-cell polyethylene rod to avoid puncturing the outer skin, as it may lead to bubbling in elevated temperature conditions. The application of backing rod is vital to achieving the correct width-to-depth ratio, providing a solid backing against which the sealant can be properly tooled off.

Load the sealant into the applicator gun, cut off the sealant packaging's end, and attach a nozzle cut to deliver the desired bead size. Extrude the sealant into the joint, ensuring the absence of trapped air. Tooling is recommended immediately after sealant application. Maintain a width-to-depth ratio of 2:1, with a minimum depth of 10mm (0.3937")



COMPLIANCE WITH:

ISO-11600,
Type F - class: 25LM,
DIN-18540-F,
ASTM C920,
U.S. Federal Specification TT-S-00230C,
Type II Class A.

IMPESEAL™ MP is CE certified according to EN 15651-1 (Sealants for Facades) and 15651-4 (Sealants for Floor Joints with Foot traffic).

RECOMMENDED FOR

Sealing joints in:

- In-situ concrete,
- Precast concrete panels,
- Brick and block work,
- Water tanks and swimming pools,
- Metal frames,
- Aluminium windows and panels,
- Irrigation channels,
- Glass,
- Granite & marble.

FEATURES & BENEFITS

- No bubbling/swelling upon curing in difficult climatic conditions.
- Excellent Thixotropy
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- Excellent extrusion, tooling and storage stability over wide range of climatic conditions.
- Excellent chemical resistance, suitable for sealing joints in swimming pools and chemically treated water.
- Low modulus, joint movement accommodation 50%.
- Microorganism and fungus resistant.
- Excellent heat resistance, suitable for application where exposure to temperatures >60°C / 140°F take place.
- Resistance to cold: The sealant remains elastic even down to -40°C / -40°F

LIMITATIONS

-  Not recommended for direct application on unsound substrates. In this case, the substrate must be primed with IMPEPRIME™ MP, which will re-enforce the concrete and produce a strong durable substrate for sealant application.
- Highly porous substrates, dusty surfaces or poorly compacted concrete, must have their porous bond area surfaces thoroughly sealed to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

CONSUMPTION:

Linear meters per 600cc (20.2fl. oz.) sausage:

WIDTH \ DEPTH	5mm	10mm	15mm	20mm	25mm
5mm	24	12			
10mm			4	3	2.4
15mm					1.6

PACKAGING

600cc (20.2fl. oz.)

300cc cartridge (10.1fl. oz.)

SHELF LIFE

12 months minimum for 600cc (20.2fl. oz.) sausages and 6 months for 300cc (10.1fl. oz.) cartridges in the original packaging when stored in dry places and at temperatures of 5-25°C / 41-77°F. Once opened, use as soon as possible.



TECHNICAL SPECIFICATIONS

PROPERTY	UNITS	METHOD	SPECIFICATION
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.45
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	2.5-3.5
Cure Rate	Mm/day	-	2-3
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	±27
Modulus at 100% elongation	(N/mm ²)	ASTM D412 / EN-ISO-527-3	0.3
Elongation	%	ASTM D412 / EN-ISO-527-3	>700
QUV Accelerated Weathering Test(4hr UV, at 60°C (UVB-Lamps) & 4hr COND at 50°C)	-	ASTM G53	Passed (after 2000hr).
Thermal Resistance (100 days, 80°C)	-	EOTA TR011	Passed
Toxicity	-	-	No restrictions after full cure
Resilience	%	DIN 52458	>90
Hydrolysis (8% KOH, 15 days @ 50°C)	-	-	No elastomeric property change
Hydrolysis (H ₂ O, 30 days-cycle 60-100°C)	-	-	No elastomeric property change
HCl (PH=2, 10 days @RT)	-	-	No elastomeric property change
Adhesion to concrete	kg/cm ² (N/mm ²)	ASTM D4541	> 20 (> 2)

EU-Declaration of Performance

In accordance with Annex III of Regulation (EU) No.305/2011 (Construction Product Regulation)

For the product **IMPESEAL™ MP**

No: CPR-5113/850/14-3

CPR-5113/850/14-4

The notified body (0761):

Materiaiorufarsai (MPA)

fur das Bauwesen

BeethovenstratBe 52

D-38106 Braunschweig

PACKAGING



• 10.1FL. OZ. (CARTRIDGE) • 20.2FL. OZ. (SAUSAGE)



• 300CC (CARTRIDGE) • 600CC (SAUSAGE)

EN 15651 – part 1 & part 4

The product is used as a single-component, polyurethane-based joint sealant for façade elements and for walkways.

Essential characteristics	Performance	Harmonized technical specification
Reaction to fire	Class E	EN ISO 11925-2
Elastic recovery (%)	>70%	EN ISO 7389
Resistance to flow (mm)	≤3mm	EN ISO 7390
Tensile properties – secant modulus- at 23°C	≤0.4MPa	EN ISO 8339
Tensile properties – secant modulus- at -30°C	≤0.9MPa	EN ISO 8339
Tensile properties at maintained extension	NF	EN 8340
Adhesion/cohesion properties at variable temperature	NF	EN ISO 9047
Loss of mass/volume	≤10%	EN ISO 10563
Tensile properties at maintained extension after immersion in water (4 days)	NF	EN ISO 10590
Tensile strength (movement capacity 50%)	NF	EN ISO 8340
Outdoor Requirements:		
Tensile properties at maintained extension after immersion in water (28 days)	NF	EN ISO 10590
Tensile properties at maintained extension after immersion in saltwater (28 days)	NF	EN ISO 10590
Adhesion/cohesion properties after exposure to heat, water and artificial light through glass	NF	EN ISO 11431

IMPERVIOUS WATERPROOFING®

WORLD-LEADING POLYURETHANE LIQUID WATERPROOFING

Visit our website to view product application guides and data sheets for our full range of products.

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