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# Marmox Multibond

## Building Trade Sealing and Bonding

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### Description

IPT Sealant is a high performance, professional quality, one part ready to use sealant and adhesive. Based on an innovative new Inert Polymer Technology it is suitable for a wide variety of building trade applications, Decorating, Flooring, Glazing, Joinery, Plumbing, Roofing and Tiling and out-performs conventional silicone, MSP, butyl and acrylic based products as a sealant and adhesive.

Inert Polymer Technology is a non-reactive environmentally friendly chemistry that ensures compatibility with most building materials and has the unique property of moving dynamically to accommodate the natural or unexpected movements of sealed or bonded joints within a building, ensuring long lasting performance.

IPT Sealant eliminates the selection choices that need to be made with conventional sealants. Choosing a sealant for a building application can be confusing especially as there are a wide number of products available and within those products a variety of grades, with variations in properties to suit the substrate or application. IPT overcomes this by offering the tradesman one sealant for all building applications.

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### Substrates

IPT Sealant is designed for sealing joints, voids and irregular holes in walls, partitions and other structures, resulting in an air tight and water tight seal.

IPT Building Sealant provides primerless sealing and bonding on a wide range of substrates including:

- Ceramic
- Plastics
- Wood
- Metals
- Plaster
- Masonry
- Stone

### Properties

IPT Sealant remains permanently flexible and is paintable with both alkyd resin and water based paints. Suitable applications include:

- Internal/external sealing around doors and windows
- Sealing of roofs and rainwater goods
- Weather sealing
- Sanitary applications including showers
- Sealing of gaps around fitted furniture and worktops
- Sealing around flooring
- Fire resistant sealing
- Radon resistant sealing
- Decorating caulking and sealing
- Air and sound sealing

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## Building Trade Sealing and Bonding

IPT Sealant can be used as an adhesive and has excellent initial grab quickly developing a high bond strength resulting in a permanent fixing. It is easy and economical to apply and is ideal for general construction fixing and bonding.

IPT Sealant bonds to most building materials. Substrates include:

- Brick, concrete, stone, slate, ceramic, marble, granite
- Timber, plywood, block board, chipboard, fibreboard
- uPVC plastic trims and polycarbonate
- Insulating board
- Expanded polystyrene
- Plasterboard and plaster
- Metals, aluminium, steel, lead, copper and alloys
- Painted surfaces

Surplus uncured material can be easily removed using a damp cloth.

### Features

- Primerless adhesion
- Excellent adhesion to most common substrates
- Dynamic for low and high modulus applications
- Fast cure - max bond strength is attained in 24 hours
- 3D joint movement capability minimum 25%
- Can be used internally and externally
- Fire rated up to 4 hours both integrity and insulation
- Resistant against radon (radioactive particles)
- Recommended for use in joints up to 30mm wide, larger joints widths can be accommodated
- Excellent slump resistance
- Solvent and VOC free
- Resistant to moulds and mildew
- Low dirt pick up
- Non staining on susceptible surfaces
- Easy to apply and tool off
- Excess can be wiped before curing with a damp cloth
- Paintable
- Low shrinkage
- Does not yellow
- Compatible with a wide range of substrates

### Limitations

- Where metals are not compatible with water contact, they should be primed prior to any sealant application
- The sealant is soluble in water in wet/uncured state and cannot be used submerged or in rain. Applied sealant must not be sprayed with water or other fluids before skin formation (< 30 min).
- External use: Limited adhesion when used against glass, melamine, bitumen roof felts and zinc.
- Applying on frost may impair adhesion/bond strength
- Very narrow seals cure faster than normal. There is a special version of IPT which cures more slowly.

### Application instructions

All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use mechanical abrasion to clean porous surfaces before application to remove loose material. Dust can be removed with a damp cloth or brush. Primers are not usually required.

In order to obtain maximum performance as a sealant the depth of the joint should be at least half the width and not less than 6 mm. The use of backing material is strongly recommended e.g. polyethylene backer rod or mineral wool.

Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have minor shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.

The sealant can be tooled to a smooth finish using a moist wooden stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.

Do not spray the sealant with water or other fluids before skin formation (< 30 min) - uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry (solvent free) that uses water tooling.

**Technical Data Sheet**

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## Building Trade Sealing and Bonding

### Fire classification

IPT Sealant maintains integrity of a joint in a fire situation giving a minimum 4 hours as long as the surrounding construction remains intact.

Both the sealant and the backing material must be applied to a minimum depth to achieve the stated fire resistance. The type of backing material must be as specified.

Joint with width ≤ 30 mm	Backing material	Fire- resistance
<b>Concrete, masonry and gypsum walls ≥100mm thick</b>		
Double sided seal ≥ 12,5 mm depth	Stonewool ≥ 12,5 mm depth	EI 120
<b>Concrete floors ≥150mm thick</b>		
Double sided seal ≥ 15 mm depth	Stonewool ≥ 20 mm depth	EI 240
Single sided seal ≥ 25 mm depth (on top)	Protecta Backing ≥ 48 mm depth	EI 180

### Emission data (indoor air quality)

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	7,7 µg/m <sup>3</sup>	< 5 µg/m <sup>3</sup>
TSVOC	n.d.	n.d. (< 5 µg/m <sup>3</sup> )
VOC w/o NIK	n.d.	n.d. (< 5 µg/m <sup>3</sup> )
R Value	< 1	< 1
Formaldehyde	< 3 µg/m <sup>3</sup>	< 3 µg/m <sup>3</sup>
Acetaldehyde	< 3 µg/m <sup>3</sup>	< 3 µg/m <sup>3</sup>
Sum for+ace	< 0,002 ppm	-
Carcinogenic	n.d. (< 1 µg/m <sup>3</sup> )	n.d. (< 1 µg/m <sup>3</sup> )
n.d. = not detected		

IPT Sealant complies with the requirements of GEV and the results correspond to the EMICODE emission class EC 1<sup>PLUS</sup> which is the best possible environmental and indoor hygiene health protection mark.

Tested by Eurofins Product Testing, report number G17798A.

### Usage

Usage for a standard 300 ml cartridge

Joint size (mm)	6x6	9x6	12x6	25x10	7x7 fillet	10x10 fillet
Linear metres / cartridge	8.63	5.5	4.1	1.2	12.0	6.0

### Sound resistance (lab-values)

Description	Sound rating
Single layer gypsum wall w/o IPT	15 dB
Single layer gypsum wall with IPT*	40 dB
Single seal 12mm depth	35 dB
Single seal 15mm depth	37 dB
Single seal 25mm depth	41dB
Single seal 30mm depth	43 dB
Single seal 50mm depth	47 dB
Double seal 12mm depth	42 dB
Double seal 15mm depth	44 dB
Double seal 25mm depth	48 dB
Double seal 30mm depth	50 dB
Double seal 50mm depth	59 dB

\* IPT Building Sealant installed in gaps, openings and joints on both sides of the gypsum wall to the same depth as the plaster board (12.5mm).

IPT Building Sealant tested at Sound Research Laboratories Ltd (accredited); test report no C/07/5L/3907/2 according to EN ISO 140-3:1995.

## Technical Data Sheet

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### Technical data

Form:	Ready to use thixotropic paste
Specific gravity:	1,54 g/cm <sup>3</sup>
VOC:	0 g/l
Durability w/ageing:	Type X (UV / water) (pass)
Chemical resist.:	Test passed (resistant)
Salt water immersion:	Test passed (resistant)
Microbiolog. growth:	0 (no growth)
Hardness:	Shore A 47
Tensile properties:	3,79 MPa (379 N/cm <sup>2</sup> )
Tensile elongation:	270%
3D-tensile prop.:	0,24 MPa (24 N/cm <sup>2</sup> )
3D-tensile elong.:	106%
Tear properties:	50%
Compression resist:	434 N / 1569 MPa
Radon resistance:	1,5mm thickness IPT gives $Z = 2.9 \cdot 108 \text{ s/m}$
Flashpoint:	None
Reaction to fire:	Classification D-s2, d0
Fire resistance:	Up to class EI 240
Tack free time:	60 minutes maximum
Skin time:	30 minutes maximum
Rate of cure:	10% at 24 hours
Solids content:	> 80%
Resistance to flow:	< 0,5 mm
Shelf life:	Up to 24 months when stored in unopened cartridges under cool dry conditions and 6 months in opened and resealed cartridges. Avoid temperatures above 35°C & below 5°C
Frost:	Uncured sealant should not be frozen, applied sealant resists night frost
Thermal conductiv.:	0,845 W/mK (+/- 3%) at 20mm depth (to EN 12667)
Compatibility:	Can be used in contact with most building and decorating materials
Service temp.:	-40°C to +75°C
Classification CE:	Facade (interior) 25HM Sanitary joints XS1

Colours:	A range of colours available. Standard colours are white, light grey, grey, anthracite, brown and black
Packaging:	200ml flexitube, 300ml and 380ml cartridge or 600ml foil
Health & safety:	No health hazard, indoor hygiene EMICODE EC1 <sup>PLUS</sup> classification, approved for BREEAM rated building projects. See safety data sheet
Test laboratories:	SP Sveriges Provningsverk, SE Intertek Chemicals & Phar., GB BM Trada, GB Eurofins Product Testing, DK
Responsible:	IPT Sealant is manufactured by Polyseam Limited in UK Phone +44(0)1484 421036

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