



Data Sheet MAGPLY ADHESIVE SEALANT

Magply®

Company information

Manufacturer:

IPP Ltd, Bradwell Hall, Bradwell on Sea, Essex CM0 7HX
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Product Description

MAGPLY ADHESIVE SEALANT is a high performance, professional quality, one part ready to use sealant and adhesive. MAGPLY ADHESIVE SEALANT is a non-reactive, environmentally friendly chemistry which ensures compatibility with most building materials and has the unique property of moving dynamically to accommodate the natural or unexpected movements of sealed/bonded joints within a building for long lasting performance.

MAGPLY ADHESIVE SEALANT eliminates the selection choices which need to be made with conventional sealants and adhesives. Choosing a product 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. MAGPLY ADHESIVE SEALANT overcomes this by offering the tradesman one solution for all internal building applications.

MAGPLY ADHESIVE SEALANT is designed for sealing joints, voids/irregular holes, in walls, partitions and other structures, resulting in an airtight and watertight seal. MAGPLY ADHESIVE SEALANT remains permanently flexible and is paintable with both alkyd resin and water based paints.

Suitable applications include: Internal sealing around doors and windows, sealing where air quality for health is important, sanitary applications, sealing of gaps around fitted furniture and worktops, radon resistant sealing, decorating caulking and sealing, air and sound sealing etc

MAGPLY ADHESIVE 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.

MAGPLY ADHESIVE SEALANT bonds to most building materials. Substrates include:

- Brick, concrete, stone, slate, ceramic, marble, granite
- Timber, plywood, block board, chipboard, fibreboard
- PVCu 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 as the uncured sealant is completely soluble in water.

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 for all applications internally
- Fire rated for up to 4 hours both integrity and insulation

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- Resistant against radon (radioactive particles)
- Recommended for use in joints up to 20mm wide, larger joint widths can be accommodated
- Excellent slump resistance
- Only technology available that is VOC free
- Resistant to mould 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
- Printable
- Low shrinkage
- Does not yellow
- Compatible with a wide range of substrates
- 25 year mould resistant guarantee

Application Instructions

All surfaces must be clean, sound and free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose materials and to ensure good contact for adhesion. 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 6mm. The use of backing material is strongly recommended e.g. polyethylene backer rod or mineral wool.

Apply the MAGPLY ADHESIVE SEALANT firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within 10 minutes of application, before surface skinning occurs. The sealant will have medium shrinkage during cure and if a flush surface is required, it is recommended to leave the sealant proud.

The MAGPLY ADHESIVE SEALANT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. Please note that soap and water will form a film between the stick and the sealant.

Do not spray the MAGPLY ADHESIVE 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 chemistry which uses water instead of solvents.

Fire Classification

MAGPLY ADHESIVE SEALANT maintains integrity of a joint in a fire situation giving a minimum of 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 ≤30mm	Backing Material	Fire resistance
Concrete, masonry and gypsum walls ≥100mm thick		
Dbl sided seal ≥12,5mm depth	Stonewool ≥12.5mm depth	EI 120
Concrete floors ≥150mm thick		
Dbl sided seal ≥15mm depth	Stonewool ≥20mm depth	EI 240

Emission Data (indoor air quality)

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	7.7 µg/m ³	<5 µg/m ³
TSVOC	n.d.	n.d (<5 µg/m ³)
VOC w/o NIK	n.d.	n.d (<5 µg/m ³)

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R Value	<1	<1
Formaldehyde	<3 µg/m ³	<3 µg/m ³
Acetaldehyde	<3 µg/m ³	<3 µg/m ³
Sum for+ace	<0.002 ppm	-
Carcinogens	n.d. (<1 µg/m ³)	n.d. (<1 µg/m ³)
n.d. means not detected		

MAGPLY ADHESIVE SEALANT complies with the requirements of GEV and the results correspond to the EMICODE emission class EC 1^{PLUS} which is the best possible environmental and indoor hygiene health protection mark. MAGPLY ADHESIVE SEALANT is the only technology available with no dangerous emissions during usage and curing

Tested by Eurofins Product Testing, report number G17798A

APPLICATION CHART

A = EXCELLENT B = GOOD C = FAIR

INTERNAL GENERAL AREAS	RATE
MASONRY	
Cementitious Fibre	A
Concrete/Cellular concrete/Brickwork	A
Granite/Marble/Natural Stone	A
Plaster	A
WOOD	
Fibreboard/veneer	A
Solid and untreated wood	A
GLASS/CERAMICS	
Ceramics/Porcelain	B
Layered Glass	C
METALS	
Copper and copper alloys	A
Iron	A
Lead	A
Stainless Steel	C
Untreated and anodised aluminium	A
Zinc	A
SYNTHETIC MATERIALS	
Acrylic/Fibreglass	A
Polycarbonate	B
Polyester	C
PVC and PVCu	A
OTHERS	
Acoustic Sealing	A
Dry Lining	A
Ductwork	A
Fire Sealing	A
Expansion Joints	A
Frame Fixing	A
Internal Frame Sealing	A
Low emission zones	A
Plumbing	A
Polystyrene	A
Skirting and architraves	A
Stonework	A
Woodwork	A

BATHROOMS/SANITARY/PUBLIC BATHOUSES	RATE
MASONRY	
Cementitious Fibre	A
Concrete/Cellular concrete / Brickwork	A
Granite/Marble/Natural Stone	A
Plaster	A
GLASS/CERAMICS	
Ceramics/Porcelain	B
Layered Glass	C
METALS	
Copper and copper alloys	A
Stainless Steel	C
Untreated and anodised aluminium	A
Zinc	A
SYNTHETIC MATERIALS	
Acrylic/Fibreglass	A
Polycarbonate	B
Polyester	C
PVC and PVCu	A
OTHERS	
Acoustic Sealing	A
Dry Lining	A
Ductwork	A
Expansion Joints	A
Fire Sealing	A
Frame Fixing	A
Internal frame sealing	A
Low emission zones	A
Plumbing	A
Polystyrene	A
Skirting and architraves	A
Stonework	A
Woodwork	A

KITCHENS	RATE
Acoustic Sealing	A
Concrete/Cellular Concrete / Brickwork	A
Drylining	A
Ductwork	A
Fibreboard / Veneer	A
Granite/Marble/Natural Stone	A
Internal Frame Sealing	A
Plumbing	A
Skirting and architraves	A
Solid & untreated wood	A
Stainless steel	C
Untreated and anodised aluminium	C
Woodwork	A

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Sound Insulation

Description	Sound Rating
Gypsum wall without sealant ²	13dB
Single sided seal 12mm depth ²	44dB
Single sided seal 50mm depth ¹	47dB
Double sided seal 12mm depth ²	45dB
Double sided seal 25mm depth ¹	48dB
Double sided seal 30mm depth ¹	50dB
Double sided seal 50mm depth ¹	59dB

¹ Calculated value and practical experiences

² Laboratory tested value $R_{s,w}$

MAGPLY ADHESIVE SEALANT has been tested at Acoustic Testing Laboratory at the University of Salford, Manchester (UKAS) accredited; test report no. 1342-1175 according to EN ISO 10140-2:2010

Technical Data

Condition	Ready to use thixotropic paste
Specific gravity	1.54g/cm ³
VOC:	0g/l
Durability w/ageing	Type X (UV/water) (pass)
Chemical resistance	Test passed (resistant)
Salt water immersion	Test passed (resistant)
Microbiological growth	0 (no growth)
Hardness	Shore A 47
Shrinkage	15%
Tensile strength	3.79 MPa (379 N/mm ²)
Elongation	270%
3D tensile strength	0.24 MPa (24 N/cm ²)
3D elongation	106%
Tear	50%
Compression resistance	434 N / 1569 MPa
Radon resistance	1.5mm thickness MAGPLY ADHESIVE SEALANT gives $Z=2.9$ O 108 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	<0.5mm
Shelf Life	Up to 24 months when stored in unopened tubs under cool dry conditions and 6 months in opened and resealed tubs. Avoid temperatures above 35°C and below 5°C
Frost	Uncured sealant should not be frozen
Thermal Conductivity	0.845 W/mK (+/- 3%) at 30mm
Compatibility	Can be used in contact with most building and decorating materials
Packaging	5kg tub
Health & Safety	Please see MAGPLY ADHESIVE SEALANT COSHH sheet

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