

## Product data sheet

### Description

DDSEAL sealant is a waterborne one-part fire-resistant and acoustic rated joint sealant which provides a firm, yet flexible seal to joints in a wide variety of fire-rated structures where fire resistance up to 4 hours is required. Its special intumescent properties cause the sealant to swell up and char in the presence of heat, preventing the spread of smoke and fire through the joint.

### Key features

- ▶ Good adhesion to timber, plasterboard, masonry, blockwork, plaster, concrete and many other common building surfaces.
- ▶ Up to 4 hours fire resistance.
- ▶ Suitable for horizontal and vertical joints without compromising fire rating performance.
- ▶ Over-paintable with solvent and water based paints.
- ▶ Water based, solvent & halogen free, water clean up.
- ▶ Formulated using a special acrylic emulsion to provide a firm seal whilst retaining a degree of flexibility.
- ▶ Reduces sound transmission in joints.
- ▶ Joint movement capability of  $\pm 12.5\%$
- ▶ Will not support combustion.
- ▶ For use in joints up to 50mm.

### Technical approvals

DDSEAL conforms to the following standards:

#### Fire Performance

BS 476:Part 20:1987.

BS EN 13666-3 with additional guidelines from BS EN 1366-4

#### Acoustic Performance:

Tested in accordance with BS EN ISO 140-3:1995

#### Sealant Classification ISO 11600 Classification:

F-12.5-P

### Uses

- ▶ Sealing joints, voids and irregular holes where fire resistance up to 4 hours is required.
- ▶ Ideal for sealing joints, voids and irregular holes in fire walls, partitions, door architraves, service penetrations, floors and other structures.
- ▶ For bedding of hinges and locks in fire doors.
- ▶ For perimeter sealing of internal, fire rated screens, partitions, service penetrations and door or window frames.
- ▶ To maintain integrity when sealing around pipes, services and cables.
- ▶ Sealing fire rated ductwork.

### Limitations

- ▶ Not for use in permanently damp or immersed joints.
- ▶ Do not use on substrates that bleed oils or plasticisers.
- ▶ Do not use in joints where the depth exceeds half of the width without a suitable backing material.

## Performance

Adhesion:	Good adhesion when applied to wood, plaster, plasterboard, blockwork.
Base technology:	Acrylic emulsion
Chemical resistance:	Fair to dilute acids and alkalis
Curing system:	Dries through evaporation
Hardness (Shore A 25°C):	50
ISO 11600 classification:	F-12.5-P
Mould resistance:	Contains a fungicide
Movement accommodation:	±12.5%
Paintability:	Can be overpainted.
Service life (predicted):	20 years
Service temperature range:	-15°C to +70°C
Shrinkage:	<25%
Specific gravity:	1.56 - 1.60g/cm <sup>3</sup>
Slump:	Nil
Staining:	Nil
UV resistance:	Good
Volatile content:	<25%
Acoustic rating:	40(-3;-8)dB Rw(C;CTr) BS EN ISO 717-1:1997

## Application

Properties	
Application temperature range:	+5°C to +30°C.
Curing rate:	No curing reaction takes place. Dries through evaporation
Shelf life:	12 months (DO NOT STORE BELOW 5°C).
Skinning time:	Skin forms within 25 minutes at 20°C @ 65% RH
Tack Free:	75 minutes
Working time:	5 minutes

## Instructions

Joint design:	<p>Please consult the <i>Technical Information Sheet</i> entitled 'Joint design for cartridge based products' prior to application.</p> <p>Surface preparation: All surfaces must be clean, dry and free from frost, grease and loose materials. In situations where an especially neat finish is required, use masking tape to cover the face edges of the joint and remove immediately once tooling has been completed.</p> <p>Cut the tip of the screw thread off the cartridge and screw onto the nozzle. Cut nozzle to the correct diameter for the joint size, apply using a skeleton gun. Gun sealant into joints ensuring there are no voids or gaps and that the sealant is in full contact with both joint surfaces.</p>
Tooling:	<p>Tool immediately after sealant has been applied within the working time for the product. A degree of shrinkage will occur on drying. Where a flush finish is required, it is recommended that the joint be filled/tooled slightly proud to compensate.</p>

## Equipment

A selection of useful tools and accessories is also available and includes trimming knives, rollers etc and hand/air operated guns for cartridge sealant products.

## Packaging

310ml cartridges

## Health and safety

- ▶ Non-flammable.
- ▶ Wash hands immediately after use.
- ▶ See Product Safety Data Sheet for further information.

## Gap filling material combination

Substrates	Width (mm)	Depth (mm)	Backing Material	Integrity (Minutes)	Insulation (Minutes)
Aerated blockwork/aerated blockwork	50	25	Backing Rod 50mm diameter	245	82
Hardwood/aerated blockwork	50	25	Backing Rod 50mm diameter	96	93
Softwood/aerated blockwork	25	12	Backing Rod 30mm diameter	55	54
Steel/aerated blockwork	50	25	Backing Rod 50mm diameter	77	39
Aerated concrete/aerated concrete	50	25	Backing Rod 50mm diameter	155	105
Softwood/aerated concrete	25	12	Backing Rod 30mm diameter	51	44
Hardwood/aerated concrete	50	25	Backing Rod 50mm diameter	47	47
Steel/aerated concrete	50	25	Backing Rod 50mm diameter	72	62

## Typical fire ratings

Joint Substrates	Orientation	Joint Integrity (minutes)	Insulation (minutes)
Masonry / Masonry	Wall Joint	240	240
Masonry / Masonry	Floor Joint	240	180
Gypsum Drywall	Wall Joint	120	120
Gypsum Drywall	Penetration	120	120
Concrete Floor	Penetration	240	240

The results show typical integrity levels of the product in a fire situation, however, each joint situation will have different characteristics and therefore different fire ratings.

In general it has been found that a greater depth of sealant will provide greater integrity and that a double seal i.e. sealant applied at both external faces of a joint will increase values further.

*The information given in this product data sheet is based on laboratory tests and experience which we believe to be correct. In view of the wide range and variability of substrates, we would advise that our product should be tested by the user to establish suitability for its intended application. E &OE*

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