

FlameFlex™

Description

Selleys FlameFlex™ is a fire and acoustic rated High Performance SMP Sealant.

NOTE: Prior to application of fire rated products, consult with the project fire certifier or engineer to ensure compliance with certification requirements.

Product Information

| Packaging | Size | Colour |
|-----------|------|--------|
| Cartridge | 435g | Grey |

Uses

This fire and acoustic rated joint sealant has high UV resistance and can be used indoors and outdoors on most surfaces.

External and internal, non-trafficable control joints in concrete, masonry, AAC and brick fire rated construction.

Acoustic sealing between most common building materials such as concrete, masonry, aerated concrete, plasterboard, fibre cement, metals, timber and plastic as part of a suitable design.

Installation over a wide temperature range

Features

- Fire rated up to 4 hours according to AS1530.4
- Complies with BCA acoustic requirements
- No primer required
- Adhesion to wet surfaces
- Better curing (>5°C) Non-bubbling
- Better extrudability (>5°C)
- No slump
- Paintable
- Low VOC
- Halogen free
- Isocyanate free

Technical Details

| Property | Typical Result |
|--|--|
| Technology | Moisture curing silyl-modified polymer (SMP) |
| Colour | Grey |
| Density | 1.45 |
| Application Temperature | 5 to 45 °C |
| Tooling Time (25°C) | Approx. 30min |
| Skin Time (23°C, 50% R.H.) | Approx. 50 mins |
| Cure rate (23°C, 50% R.H.) | 2 – 3mm per day |
| Tensile Strength (DIN 53504) | 1.1MPa |
| Shore A Hardness (DIN 53505) | 31 |
| Elongation at Break (ASTM D412) | > 260% |
| Modulus at 100% Elongation (ASTM D412) | 0.67 MPa |
| Elastic Modulus at 50% Elongation (ASTM D412) | 0.41 MPa |
| Movement Capability (ISO 9047) | ± 20% |
| Service Temperature | -40 °C to 90 °C |
| VOC Content | 15 g/L |
| Indicative data only, not intended for preparation of specifications | |

Surface Preparation

Ensure surfaces are clean and free of oil, grease, release agents, dust or loose particles.

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Porous surfaces should be prepared by grinding, brushing, wiping with cloths or blowing off with oil-free compressed air. Any laitance should be removed from concrete-based surfaces.

Non-porous surfaces should be free of scale, rust or oxides and can be degreased with a solvent such as MEK, acetone or mineral turpentine. Some degreasing solvents may leave a residue that should be removed.

Directions for Use

The following should only be used as a guide and the installer should apply all Australian Standards, BCA/NZBC requirements, and best practices when using FlameFlex™.

Cut tip of cartridge and attach nozzle. Insert in caulking gun. Cut nozzle to size required for joint.

Extrude sealant smoothly into joint, while ensuring that all substrates are well wetted out with sealant.

For fire rating, joint width should be between 20mm and 40mm. Minimum joint depth should be 10mm or half the width for joints wider than 20mm.

$\frac{\text{width}}{\text{depth}} = 2$ For joints greater than 20 mm, the ratio of width to depth should 2:1.

A tight fitting non-absorbent, non-adhering backing material should be used to ensure the correct dimensions and prevent three-surface adhesion. Suitable materials include open cell foam backer rod or bond-breaking tape.

Curing: The sealant cures by reaction with atmospheric moisture therefore cure rate is dependent on humidity, ambient temperature and joint size. Typically, the sealant will form a thick skin within 24 hours and full cure can be expected after 7 days.

In dry or cool conditions the sealant cure will be longer.

Painting: Paintable with water-based paints after product skins (60 – 90 min). Allow longer times before painting in colder weather. Paint within 12 hours of application. Solvent-based paints may be used after first painting with a water-based paint. Due to the large number of paints and varnishes available, a preliminary test of compatibility is recommended.

Tips

For neat joints use masking tape on both sides of the joint and remove before skinning.

In dry conditions, surfaces can be misted with water to speed up cure.

Coverage

| Joint Size (mm) | Metres per cartridge |
|-----------------|----------------------|
| 6 x 6 | 7.9 |
| 8 x 8 | 4.5 |
| 10 x 10 | 2.9 |
| 12 x 12 | 2.0 |
| 15 x 7.5 | 2.5 |
| 20 x 10 | 1.4 |
| 30 x 15 | 0.6 |
| 40 x 20 | 0.4 |

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Clean Up

Uncured product can be removed with mineral turpentine. Cured product can be removed by mechanical action. Use Poly Cleaning Wipes to remove sealant from the skin.

Storage

12 months from date of manufacture if stored below 28°C

Limitations

- Not for permanent water immersion or below water-line use
- Not suitable for use on polyethylene, polypropylene or Teflon.

Warnings, First Aid and Shipping Information

This information can be located on the product SDS found through our website – www.selleys.com

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Standards

AS1530.4-2005 Fire test in vertical concrete and AAC – control joints.

Fire Rating Summary of Tests to AS1530.4

| Test Type | Substrate | Joint Width (mm) | Joint Depth (mm) | 1 or 2 sided | Resistance to passage of flame (min) | Insulation limit of 181°C temperature rises (min) | Rating |
|----------------------|------------------------|------------------|------------------|---------------------------|--------------------------------------|---|-----------|
| Control joint | Concrete | 40 | 20 | 1: fire side only | 197 | 39 | -/180/30 |
| Control joint | Concrete | 40 | 20 | 2: fire and non-fire side | No Failure at 241 min | 145 | -/240/120 |
| Control joint | Concrete/AAC interface | 40 | 20 | 2: fire and non-fire side | 178 | 117 | -/120/60 |

Fire rated levels are dependent on joint design, substrate and substrate configuration. Further configurations may also be tested. Please contact Selleys Technical Service for further details.

Acoustic Performance

| Bead | Sealant Depth (mm) | Area of Gap (of wall) | Rw |
|---------------|--------------------|-----------------------|----------|
| Single | 15 | 0.5 | Up to 50 |
| Single | 15 | 1 | Up to 47 |
| Single | 15 | 2 | Up to 45 |
| Double | 15 | 0.5 | Up to 60 |
| Double | 15 | 1 | Up to 57 |
| Double | 15 | 2 | Up to 55 |

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