

FireStop 20 Base Resin Technical Datasheets

1.1. Application

WonderBuilds FireStop 20 Base Resin is primarily designed for use in the fibre reinforced base layer of the FireStop 20 liquid applied roofing system.

1.2. Description

| Characteristic | Benefit |
|---|---|
| Orthophthalic Polyester Resin | Excellent structural and water resistant properties |
| Quick curing, with low-tack cured surface | Early "walk-on" and detail sanding |
| Reduced Styrene emission | Lower odours |
| Pre-accelerated | All year round fast curing |
| MEKP liquid cured | Easy catalyst dosing |
| Catalyst colour change mechanism | Confirms catalyst is added and well mixed |
| Low viscosity / fast wetting | Rapid wetting of the glass fibres and early conforming to detail work |
| Thixotropic | Prevents drainage/sagging from vertical surfaces |

1.3. Recommendations

Read the full WonderBuilds FireStop 20 application manual before use. Wear PPE and observe all safety instructions.

- Protect the containers from extremes of temperature in storage and especially just before use.
- Ensure base boards are 100% dry before application.
- Do not begin work in wet conditions or if rain is likely.
- Use only above 5°C air and deck temperature and below 30°C air temperature.
- Always stir well in the original container before use or decanting.
- FireStop 20 Catalyst should be added between 1 and 4% depending on conditions and desired pot life .
- Intended application rate is 1 litre/m² when using 450 gm CSM.
- Apply by synthetic roller and consolidate the laminate with a paddle roller.
- Clean tools with Acetone after use.

1.4. Catalysing

For most conditions catalyst should be added between 1.5 and 2.5% (see manual for % versus volume addition charts). For very cold temperatures 2-4% is typical, and for very warm conditions 1.0-1.5% is typical. As a working guide 2% catalyst will give approximately 85 mins working time at 5°C and 11mins at 30°C. Adjust the catalyst level up or down to obtain the desired pot life and cure. Never add less than 1% or more than 4% as full cured properties will not be achieved.

1.5. Typical Liquid Resin Properties

| | |
|--|-----------------------------|
| Viscosity at 25°C (Brookfield) Spl 6, 6 RPM | 2275 MPas |
| Viscosity at 25°C (Brookfield) Spl 6, 60 RPM | 700 MPas |
| Thixotropic index | 3.25 |
| Gel time (25°C, 1.5% Catalyst) | 18 Mins |
| Specific Gravity @ 25° | 1.17 |
| Flashpoint | 32°C |
| Shelf life (unopened containers stored at < 25°C) | 6 Months from delivery date |

1.6. Typical Cured Resin Properties

| Test | Method | Unit | CSM Laminate (1) |
|-----------------------------|---------------|--------|------------------|
| Tensile Strength | Iso 527 | MPa | 94 |
| Tensile Modulus | Iso 527 | GPa | 8.75 |
| Elongation At Break | Iso 527 | % | 1.8 |
| Flexural Strength | Iso 178 | MPa | 174 |
| Flexural Modulus | Iso 178 | GPa | 7.2 |
| Heat Distortion Temperature | Iso 75 | °C | N/A |
| Barcol Hardness | ASTM D2583-07 | Barcol | 47 |

(1) 4 x 450 g/m² CSM, 30% glass by weight, catalysed with 1% Firestop 20 Catalyst and post-cured for 4 hours at 80°C

1.7. Storage

Store in closed containers, below 25°C in a well-ventilated place. Storage at or significant exposure to higher temperatures may cause gelation in the product or loss of quality. Avoid sources of ignition.