

## WonderBuilds Base Resin (20kg) GRP

### 1. Base Coat Resin

#### 1.1. Application

WonderBuilds Basecoat Resin is primarily designed for use in the fibre reinforced base layer of the GRP Roof 1010 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 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.
- GRP Roof 1010 Catalyst should be added between 1 and 4% depending on conditions and desired pot life.
- Intended application rate is 1 litre/m<sup>2</sup> 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% 1010 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/m<sup>2</sup> CSM, 30% glass by weight, catalysed with 1% GRP Roof 1010 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.