

Introduction

When it comes to flat roof replacements, the Firestop 20 System offers unrivalled performance at exceptional value and a genuinely long-lasting solution. Specially formulated to provide durable waterproof protection, Firestop 20 has been developed by the leading polyester chemists specifically for the purpose of flat roofing – unlike many other GRP roofing products.

Every batch is made to a rigorous specification for consistent high quality roofing performance. The system is LABC approved for ensured compliance with building regulations, fully fire tested and supported by a 20 year materials guarantee.

Features and Benefits

- Engineered for optimum roofing performance – both in terms of application and durability.
- Toughened Top Coat - Excellent durability, weathering, water resistance and aesthetics
- Special accelerator system - Complete curing across temperature and catalyst range
- Modified for low styrene emission - Lower odour in use
- Low tack - "Walk-on" at an early stage - does not attract debris
- Ideal for vertical applications - Good sagging resistance with low ripple
- Fire tested to BS 476-3 Rating: F.AB and EN 13501-5(4) Rating: B_{ROOF}(t4) – the highest rating a flat roof system can get and allowing for unrestricted use under UK regulations.
- Colour change mechanism – once the Base Resin is fully catalysed, the resin turns from a
- Impervious to standing water – ponding is only an aesthetic issue, never a performance issue.
- Genuinely fast curing – can be walked on 30-60 minutes after application
- Cold applied for maximum safety – no risks from open flames and other hot works.
- Can be applied to temperatures as low as 1°C with the use of Winter Accelerators.
- Anti-slip finishes available for balcony and walkway applications
- Developed and manufactured in the UK to ISO 9001 and ISO 14001 standards

Feature Table (Comparing Firestop 20 to cheaper, reconstituted/re-blended resins):

Feature	FIRESTOP 20	Re-Blended Resins
Polyester resin in styrene	✓	✓
Basic waterproofing ability	✓	✓
Fully formulated from consistent quality controlled base materials	✓	✗
Made to a defined specification to ensure consistent performance every batch	✓	✗
Confirmed adhesion between base and top coats - no flaking	✓	Varies
Strong adhesion to OSB3 and plywood - no blisters or delamination	✓	Varies
Meets the requirements of BS 3532:1990 Type A (Method of Specifying Unsaturated Polyester Resins)	✓	Varies
Manufactured and distributed under ISO 9001 Quality Standards for assured quality product and service	✓	Varies
Consistent application properties	✓	Varies
Bespoke accelerator system to enable suitable cure times across a range of temperatures	✓	Varies
Low styrene emissions for lower odour and lower VOCs	✓	Varies
Premium quality system engineered for optimum roofing performance	✓	✗
Toughened, crack-resistant formula	✓	✗
Engineered to provide an expected lifespan of at least 20 years	✓	✗
Outstanding weathering and appearance	✓	✗
LABC Registered Detail for compliance with building regulations when used as a roofing system	✓	✗
20 Year Materials Guarantee	✓	✗
Fully fire tested as a roofing system to BS476 Pt 3 (FAB) and EN 13501-5 (B _{ROOF} (t4))	✓	✗

Restrictions

- Application temperature ranges from 5 - 30°C as standard. The minimum temperature can be lowered to 1°C with the use of Winter Accelerators. The system should not be applied in damp or cold conditions which could cause surface condensation; during frost or if there is a risk of rain.



- Firestop 20 should only be applied to an OSB3 deck (tongue and groove or square edge)
- Surfaces to be coated should be visibly dry, and when measured with a “Protimeter” moisture meter a maximum moisture content of 20% w.m.e
- Expansion trims will be required for any roofs in excess of 50m² or with a run greater than 10m². For any other application expansion trims are not required.

Coverage Rates & Priming Requirements

- Firestop 20 Base Resin is applied at a coverage rate of 1.2 Kg/m² (1.0 Litre/m²) when using 450g/m² fibreglass mat reinforcement. When using 600g/m² fibreglass mat reinforcement this is increased to 1.6 Kg/m² (1.33 Litre/m²).
- Firestop 20 Top Coat is applied at a coverage rate of 0.66 Kg/m² (0.5 Litre/m²).

Estimating Guides

Base Resin:

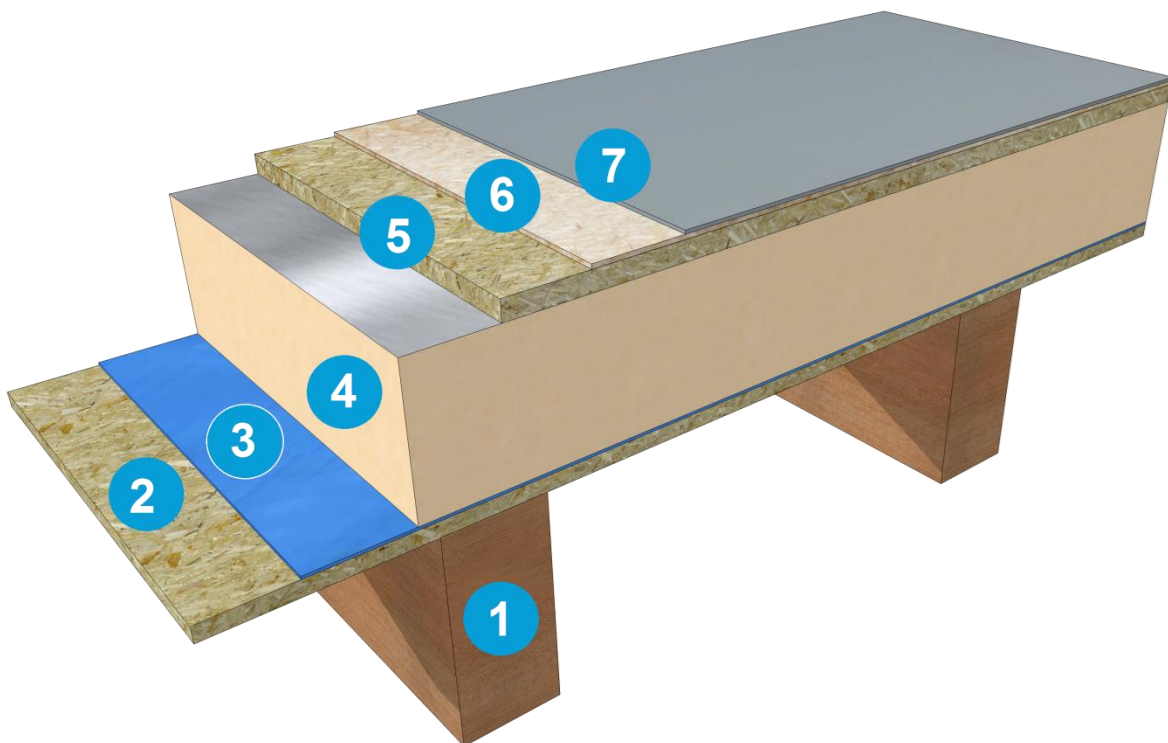
Roof Area	Amount of Base Resin required for Main Laminate when using 450g/m ² mat		Amount of Base Resin required for Main Laminate when using 600g/m ² mat	
	Approx. Weight	Volume	Approx. Weight	Volume
5 m ²	6.0 kg	5.0 ltrs	8.0 kg	6.6 ltrs
10 m ²	12.0 kg	10.0 ltrs	16.0 kg	13.3 ltrs
15 m ²	18.0 kg	15.0 ltrs	24.0 kg	20.0 ltrs
20 m ²	24.0 kg	20.0 ltrs	32.0 kg	26.6 ltrs
25 m ²	30.0 kg	25.0 ltrs	40.0 kg	33.3 ltrs
30 m ²	36.0 kg	30.0 ltrs	48.0 kg	40.0 ltrs
40 m ²	48.0 kg	40.0 ltrs	64.0 kg	53.2 ltrs
50 m ²	60.0 kg	50.0 ltrs	80.0 kg	66.5 ltrs
70 m ²	84.0 kg	70.0 ltrs	112.0 kg	93.0 ltrs
100 m ²	120.0 kg	100.0 ltrs	160.0 kg	133.0 ltrs

Top Coat:

Roof Area	Amount of Top Coat Resin Required	
	Approx. Weight	Volume
5 m ²	3.3 kg	2.5 ltrs
10 m ²	6.6 kg	5.0 ltrs
15 m ²	9.9 kg	7.5 ltrs
20 m ²	13.2 kg	10.0 ltrs
25 m ²	16.5 kg	12.5 ltrs
30 m ²	19.8 kg	15.0 ltrs
40 m ²	26.4 kg	20.0 ltrs
50 m ²	33 kg	25.0 ltrs
70 m ²	46.2 kg	35.0 ltrs
100 m ²	66 kg	50.0 ltrs

System Build-Ups

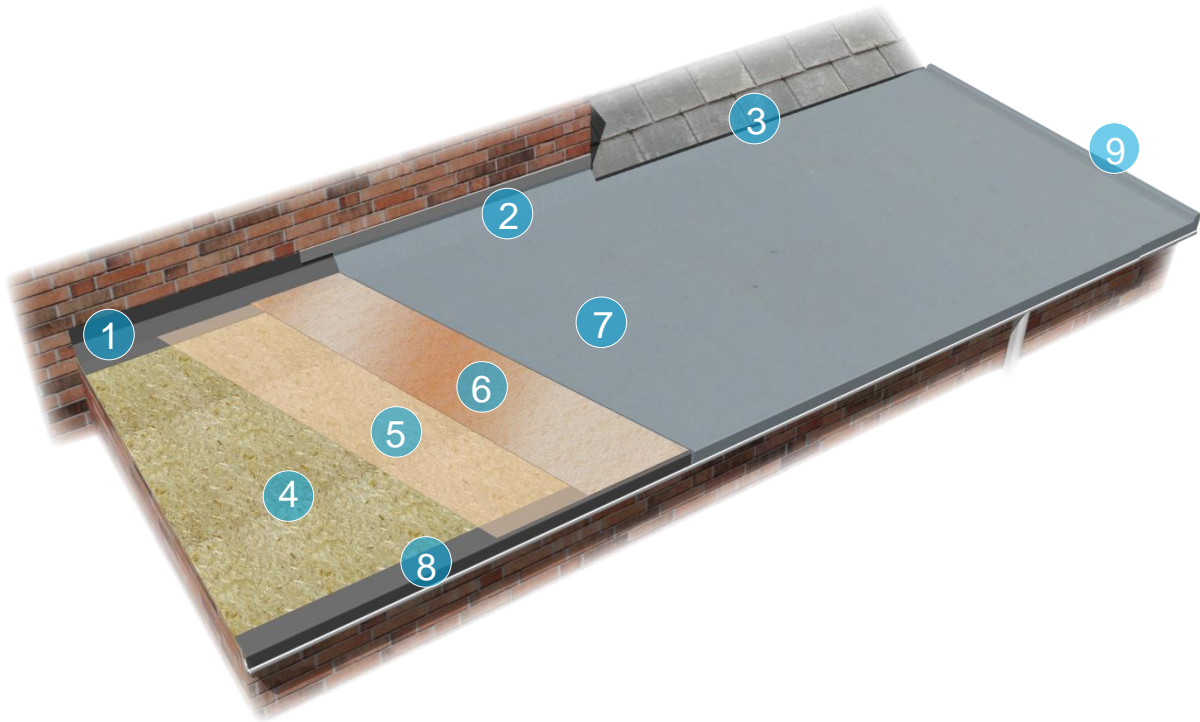
Typical Firestop 20 Build-Up (Warm Roof)



WanderBUILDS

1. Timber joists with firrings to create a minimum recommended 1 in 80 fall
2. 18mm OSB3 spreadsheet
3. Vapour control layer e.g. 1000 gauge visqueen
4. Rigid insulation e.g. Kingspan Thermaroof TR26 Insulation
5. 18mm OSB3 TG4 deck
6. Firestop 20 Base Resin with CSM reinforcement
7. Firestop 20 Top Coat

With Trims:



- | | | | |
|---|-------------------------------|---|-----------------------------------|
| 1 | Wall fillet trim | 6 | Reinforced Firestop 20 Base Resin |
| 2 | Cover flashing | 7 | Firestop 20 Top Coat |
| 3 | Flat trim (underneath slates) | 8 | Drip trim |
| 4 | OSB3 TG4 deck | 9 | Upstand fascia trim |
| 5 | Firestop 20 Base Resin | | |

System Components & Add-Ons

Key Components:



Firestop 20 Base Resin - 20kg

Firestop 20 Base Resin resin forms the first layer of the system and incorporates CSM fibreglass.



Firestop 20 Top Coat - 20kg

Firestop 20 Top Coat is applied over the cured Base Resin laminate to provide an attractive and UV-resistant finish. The Top Coat is pre-pigmented in Dark Admiralty Grey.



Firestop 20 Liquid Catalyst - Available in 1kg or 5 kg packs and in Standard and Summer Versions

Liquid catalyst is added to the Base Resin and Top Coat resins to initiate the curing process. The amount of catalyst required varies on volumes and temperatures.



450g/m² or 600g/m² CSM - Available in 15m² & 30m² roll or 35kg Bulk Packs

Fibreglass CSM provides strength and resilience to the Firestop 20 System and also helps ensure an even coverage of the liquid material. The fibreglass matting is embedded into the Base Resin resin system and, by working through with a paddle roller, becomes fully consolidated with the resin.

WanderBUILDS

Additional Components:



Taping Mat - Available in 18lm or 110lm

A 75mm wide strip of 450g/m² is used to provide additional, local reinforcement to details (such as pipes) and joints (such as trim joints).



Firestop 20 Base Resin and Top Coat Winter Accelerators

When using winter accelerators, the system can be applied in temperatures as low as 1°C (usual 5°C limit). Keeps roofers working for longer over the winter months - you won't find another fibreglass system with this ability!



Mineral Slate Chippings - Available in 15kg

Mineral slate chippings are thrown onto a wet top coat of resin to provide an anti-slip surface - ideal for balconies and walkways..



Acetone – Available in 1ltr or 5ltr

A solvent primarily used for cleaning tools and wiping trims before coating. Acetone can also reactivate the Firestop 20 Base Resin membrane if another coat needs to be applied and the system has been left longer than 24 hours days.



Catalyst Dispenser – Available in 80ml capacity

A catalyst dispenser is used to safely handle liquid catalyst and measure the volume of catalyst.

Application Tools:



PPE



Application Rollers



Paddle Roller



Brushes



Mixing Bucket



Trimming Knife

FAQs

How much Liquid Catalyst do I need?

Liquid Catalyst is applied using a dispenser. 10ml of Liquid Catalyst equates to a 1% catalyst addition rate to 1 litre of resin. Note – do not recommend catalysing more than 10 kg at a time.

RECOMMENDED BASE RESIN CATALYST RATES

CATALYST ADDITION RATE:		4%	3%	2%	1%
TEMPERATURE RANGE:		5-10°C	11-17°C	18-25°C	26-30°C
BASE COAT RESIN AMOUNT		CATALYST AMOUNT	CATALYST AMOUNT	CATALYST AMOUNT	CATALYST AMOUNT
VOLUME	WEIGHT				
1 ltr	1.2 kg	40 ml	30 ml	20 ml	10 ml
2 ltr	2.3 kg	80 ml	60 ml	40 ml	20 ml
3 ltr	3.5 kg	120 ml	90 ml	60 ml	30 ml
4 ltr	4.7 kg	160 ml	120 ml	80 ml	40 ml
5 ltr	5.9 kg	200 ml	150 ml	100 ml	50 ml
6 ltr	7.0 kg	240 ml	180 ml	120 ml	60 ml
7 ltr	8.2 kg	280 ml	210 ml	140 ml	70 ml
8 ltr	9.4 kg	320 ml	240 ml	160 ml	80 ml
9 ltr	10.5 kg	360 ml	270 ml	180 ml	90 ml
10 ltr	11.7 kg	400 ml	300 ml	200 ml	100 ml
11 ltr	12.9 kg	440 ml	330 ml	220 ml	110 ml
12 ltr	14.0 kg	480 ml	360 ml	240 ml	120 ml
13 ltr	15.2 kg	520 ml	390 ml	260 ml	130 ml
14 ltr	16.4 kg	560 ml	420 ml	280 ml	140 ml
15 ltr	17.6 kg	600 ml	450 ml	300 ml	150 ml
16 ltr	18.7 kg	640 ml	480 ml	320 ml	160 ml
17 ltr	20.0 kg	680 ml	510 ml	340 ml	170 ml

NOTE:

The information provided in this table is for guidance purposes only. Before you start it is best practice to decant a small amount of product, then add and mix the suggested amount of catalyst. Take note of the pot life (i.e. the time it takes to cure) and ensure it is appropriate for the job at hand. To gain the required pot life, catalyst levels can be adjusted to decimal points, such as using 2.5%.

FOR APPLICATIONS TO DECK TEMPERATURES BETWEEN 1°C - 5°C, ASK YOUR DISTRIBUTOR ABOUT FIRESTOP 20 WINTER ACCELERATORS

RECOMMENDED TOP COAT CATALYST RATES

CATALYST ADDITION RATE:		3%	2%	1%
TEMPERATURE RANGE:		5-17°C	18-25°C	26-30°C
TOP COAT RESIN AMOUNT		CATALYST AMOUNT	CATALYST AMOUNT	CATALYST AMOUNT
VOLUME	WEIGHT			
1 ltr	1.3 kg	30 ml	20 ml	10 ml
2 ltr	2.6 kg	60 ml	40 ml	20 ml
3 ltr	4.0 kg	90 ml	60 ml	30 ml
4 ltr	5.3 kg	120 ml	80 ml	40 ml
5 ltr	6.6 kg	150 ml	100 ml	50 ml
6 ltr	7.9 kg	180 ml	120 ml	60 ml
7 ltr	9.2 kg	210 ml	140 ml	70 ml
8 ltr	10.6 kg	240 ml	160 ml	80 ml
9 ltr	11.9 kg	270 ml	180 ml	90 ml
10 ltr	13.2 kg	300 ml	200 ml	100 ml
11 ltr	14.5 kg	330 ml	220 ml	110 ml
12 ltr	15.8 kg	360 ml	240 ml	120 ml
13 ltr	17.2 kg	390 ml	260 ml	130 ml
14 ltr	18.5 kg	420 ml	280 ml	140 ml
15 ltr	20.0 kg	450 ml	300 ml	150 ml

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FOR APPLICATIONS TO DECK TEMPERATURES BETWEEN 1°C - 5°C, ASK YOUR DISTRIBUTOR ABOUT FIRESTOP 20 WINTER ACCELERATORS

Do I need trims?

Yes, trims are needed for detailing work.

What are the most important factors for a successful installation?

Remember the **4 C's** to a successful installation:

1. **Coverage:** know how much material you should use
2. **Catalyst:** how much liquid catalyst you need to use
3. **Consolidation:** ensure matting is fully worked into resin and paddle-rolled through
4. **Care:** take time to follow guidance to ensure a high quality finish to the job

If I use Winter Accelerators, do I still need to use Liquid Catalyst?

Yes, Liquid Catalyst is always required to cure the Firestop 20 Base Resin and Top Coat resins. The Winter Accelerators are designed to speed up the cure-times of the system in cold weather applications, and the resins should be catalysed at the usual rate.

Do I need to paddle roll?

Paddle rolling isn't necessary but it certainly doesn't do any harm. In some instances, especially around detailing areas, paddle rolling can achieve a nicer finished appearance.

Can I cover the Firestop 20 membrane with a green roof system?

Absolutely – being seamless, lightweight and totally maintenance-free, Firestop 20 can provide an ideal waterproofing base for green roofs.

Warranties, Accreditations & Life Expectancies

- 20 Year Materials Guarantee available to installers
- Fire tested to BS 476-3 Rating: F.AB
- LABC Registered Detail approval
- Manufactured under ISO 9001 Quality Management Standards and ISO 14001 Environmental Management Standards
- Life expectancy of at least 20 years