

Cemprotec GFM 100 & GFM 225

Special Glass Fibre Reinforcement for Flexcrete Membranes

Product Overview

Glass fibre random weave mat comprising chopped strands of e-glass fibres.

Uses

CEMPROTEC GFM is supplied in two grades for the reinforcement of the Flexcrete range of fluid applied membranes. It is particularly suited for the reinforcement of **ROOFDEX HB** used in pitched and flat roof waterproofing where it greatly enhances tensile strength and tear resistance to increase cohesive strength of the composite membrane to accommodate cracks in roofing substrates. It is also used to reinforce **BIODEX** and **MONODEX** membranes in situations where a multi-crazed or cracked substrate must be treated, or where there is a need to provide an additional defence against mechanical damage in high traffic environments.

Advantages

- Enhances tensile strength and tear resistance of fluid applied membranes.
- Allows the formation of a seamless waterproofing system with the strength of sheet waterproofing.
- Enables Flexcrete membranes to accommodate additional movement in fluid applied roofing applications.
- Very easy to mould around difficult contours to provide a fully armoured, seamless defence against weather.
- Simple application, easy to embed even if folds are necessary because of surface undulations.
- Single source solution with proven performance in widely varying climatic conditions.

Description

CEMPROTEC GFM is a specially formulated random weave mat comprising chopped strands of e-glass fibres. It is silane coated for long-term stability and emulsion-bound to give ultra-fast wetting out properties. Unlike traditional glass fibre reinforcements, the hybrid technology enables **CEMPROTEC GFM** to be quickly and effectively moulded around the most complex roof geometry, easily accommodating upstands and sealing around other protrusions. On facades and bridge parapets requiring reinforcement, it produces an attractive, random weave effect which is aesthetically pleasing. **CEMPROTEC GFM 100** is 100g/m² single layer matting for lighter duty applications and **CEMPROTEC GFM 225** is 225g/m² dual layer premium grade for ultimate durability and longevity in the most demanding exposed conditions. Due to manufacturing tolerances, weights are approximate.

Technical Data

Property	CEMPROTEC GFM 100	CEMPROTEC GFM 225
Typical Area Weight ISO3374:2000	100g/m ²	225g/m ²
Loss on Ignition ISO1887:1995	5.4% (average)	5.4% (average)
Moisture Content ISO3344:1997	≤ 0.3%	≤ 0.2%
Breakage Strength ISO3342:2011	≥ 12N	≥ 30N

Mechanical Characteristics

Tensile Properties to BS 903-A2: 1995 when used in **ROOFDEX HB**:

Reinforcement Type	Un-reinforced	GFM 100	GFM 225
Roofdex HB	0.75L/m ²	1.25L/m ²	1.75L/m ²
DFT	370µm	650µm	900µm
Elongation	500%	10%	5%
Tensile Strength	0.68MPa	5.45MPa	16.60MPa

Tensile Properties to BS 903-A2: 1995 when used in **ROOFDEX HB**:

Property	GFM 100	GFM 225
Roofdex HB	1.25L/m ²	1.75L/m ²
DFT	650µm	900µm
Result	No indentation, no damage to coating system.	

Application Instructions

Please consult relevant Flexcrete membrane Data Sheet and Application Guide for details on substrate preparation, priming and application.

Preparation

Fill live cracks, construction joints and joints between dissimilar materials with a suitable exterior grade flexible filler. When treating expansion joints, apply masking tape (at least 25mm wide) centred over the joint.

Application

Pre-cut the **CEMPROTEC GFM** to the required size or shape using scissors. Detail work should be carried out first by treating upstands and around any fixtures, fittings or penetrations through the substrate prior to treating the main substrate.

Apply the membrane to the localised detail using a brush or roller at the thickness given in the table below. Lay the pre-cut sections of **CEMPROTEC GFM** into the wet material immediately and work it into the coating using a brush or roller. The fibres will soon start to wet out and disperse. Smooth down any proud fibres with a short pile mohair roller.

Allow to dry thoroughly overnight before treating main areas. Apply the membrane at the thickness given in the table below to the main areas using a brush, roller or airless spray, overlapping onto any detail work by 25mm. Lay the pre-cut sections of **CEMPROTEC GFM** into the wet material as above.

CEMPROTEC GFM should normally be embedded using a short pile mohair roller, although for rougher irregular substrates, a sheepskin roller should be used as this will give better contact with surface contours. Allow to dry thoroughly.

Apply a full overall application of the appropriate Flexcrete membrane in accordance with the technical literature. Ensure reinforcement is fully encapsulated.

Coverage

Product	Size (Approx)	Embedment Coat		
		Roofdex HB	Biodex HB	Monodex UVC
GFM 100	100m x 1m width	750µm	700µm	700µm
GFM 225	125m x 0.95m width	1250µm	1000µm	1000µm

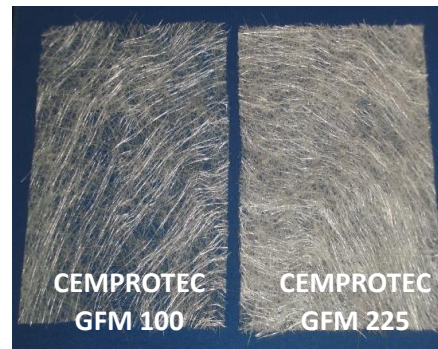
Shelf Life

Indefinite when stored in dry conditions in original packaging.

Health and Safety

Safety Data Sheets are available on request.

Appearance



Application Top Tips

1. Rough, porous or irregular substrates will reduce coverage.
2. Regularly check application thickness with a wet film gauge.
3. On areas where the coating will be subject to impact or abrasion, or where the substrate is cracked or crazed, total reinforcement using **CEMPROTEC GFM** will increase the durability of the system.
4. Use sufficient pressure to draw the Flexcrete fluid applied membrane through the unwoven texture of the reinforcement and uniformly embed.
5. When dealing with complex details, a vigorous stippling or tamping technique will ensure complete contact with the substrate.
6. Use a short pile mohair roller to smooth down proud fibres.
7. Ensure that rollers are kept fully charged with material to avoid pulling up fibres.
8. Successive coats should ideally be applied in different colours, acting as a visual aid in achieving the necessary coverage rates.
9. Curing/drying time is temperature dependent. As a guide, the coating will be touch dry in approximately 1-8 hours in hot conditions (>30°C.), 2-12 hours at 20°C. and 4-24 hours at lowest temperature (>10°C.).
10. The use of a dark colour for embedment can reduce drying time in cooler conditions.
11. Product is through-cured in 2-24 hours dependent on temperature.
12. Cold Weather Working (See separate guide).

The information herein is correct to the best of our knowledge, but it does not necessarily refer to the particular requirements of the customer. If the customer has any particular requirements it should make them known in writing to Flexcrete Technologies Limited, and obtain further advice accordingly.

