



## Technical data sheet

### METROFLEX FLEXIBLE RESIN

First Emission: 12/10/2022 Version: 0,12/10/2022

#### Product type

Pre-accelerated, unsaturated polyester Fire Retardant material in styrene.

#### Appearance

Various Colours

#### Description

Metroflex Flexible Resin is a speciality Fire Retardant Roofing material for speciality flat roof systems.

Please contact your CFSNET Ltd representative for full details. These are available in a limited range of colours but colour matching requests are possible.

This product range is ready to use and exhibit good application characteristics.

This range contains only styrene monomer as reactive diluent.

Materials are not designed to be used for swimming pool recoating / relining applications.

Materials contain wax and cure tack free to provide an attractive cosmetic film on the back of composite pieces. They are not suitable to be used as in mould applied gel coats.

#### Key Features & Benefits

Filled  
Fire retardant properties  
Good flexibility and elasticity  
Low styrene content  
Low viscosity  
Paraffinated  
Pigmented  
Preaccelerated

#### Application

Do mix the material prior to use, preferably using a mechanical mixer with sufficient power for the appropriate container at low rpm. Mixing for 10 minutes every day is usually sufficient. Do NOT use air bubbling directly to mix.

Ensure material is used at minimum liquid temperature of 18°C including the mould used and workshop environment conditions. The final Fire resistance properties could change following the final structure of the piece and its use's condition. It will be necessary to verify the final properties on a prototype before industrial production.

This material is ready to use - It contains wax to allow tack free curing.

Use only the recommended MEKP Peroxide dosage between 1.2 to 3.0% w/w

#### Shelf life and storage

Please ensure you rotate stock and use within shelf life.

Please note the Shelf life for this product relates to unopened containers; Only open container prior to use.

Read carefully the Safety Data Sheet before use.

Store in the shade, out of direct sunlight. Keep storage temperature below 25°C. Shelf-life will be reduced at higher temperature.

#### CHARACTERISTICS (1)

| Properties                                   | Test Method  | Unit              | Typical values |
|----------------------------------------------|--------------|-------------------|----------------|
| Shelf life at 23°C in the dark               |              | months            | 4              |
| Density - 25°C                               | MT-C G 001 O | g/cm <sup>3</sup> | 1.4-1.5        |
| Solid content                                | MT-CG 001C   | %                 | 78-83          |
| <b>Rheology</b>                              |              |                   |                |
| Brookfield viscosity at 25°C, sp 4 rpm 5     | MT-CG 025V   | mPa.s             | 5000-7000      |
| Brookfield viscosity: 5 rpm / 50 rpm at 25°C | MT-CG 025V   |                   | 2.0-3.5        |
| <b>Reactivity</b>                            |              |                   |                |
| Gel Time at 25°C + 1,8% MEKP50               | MT-C G004 R  | minutes           | 13-15          |
| Curing time at 25°C + 1,8% MEKP50            | MT-C G004 R  | minutes           | 22-30          |
| Peak exotherm at 25°C + 1,8% MEKP50          | MT-C G004 R  | °C                | 80-100         |
| <b>Film Properties</b>                       |              |                   |                |
| Tack free Film cure : 500-700u at 25°C       | MT-C G 901 R | min.              | <90            |

1) Thoroughly test the material in your applications before full-scale use. Gel times may vary due to the reactive nature of these materials and due to different brands of curing additives. Always test on small scale before formulating large quantities.

#### PROPERTIES OF THE MATERIAL'S BASE RESIN IN CURED STATE (2)

|                     |                           |     |     |
|---------------------|---------------------------|-----|-----|
| Curing cycle        | 24h at 23°C + 24h at 60°C |     |     |
| HDT                 | ISO 75-2A (2013)          | °C  | N/A |
| Tensile strength    | ISO 527 (2012)            | MPa | 20  |
| Elongation at break | ISO 527 (2012)            | %   | 50  |

2) Properties are typical values, based on material tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

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