

## FLS 104 Liquid waterproofing

### Product Description

FLS 104 Liquid waterproofing is a high performance, single component, liquid-applied polyurethane based waterproofing membrane that utilises Humidity Activated Accelerator (HAA) Technology.

It cures with reaction to atmospheric humidity to form a highly elastic and extremely hydrophobic membrane with excellent mechanical and chemical properties. Due to its excellent adhesion to several types of substrates and its resistance to UV and weathering, it is an ideal solution for many types of waterproofing application.



Due to its unique formulation, it cures rapidly to form a completely defect free membrane with excellent mechanical and elastomeric properties. FLS 104 Liquid waterproofing is ideal for use during the winter months or in climates with relatively low humidity. Furthermore, the fact that the minimum consumption can be achieved in one coat reduces labour cost and results in a quick application. FLS 104 should be applied with a brush, roller or pin rake at a minimum consumption rate of **1.5 kg per m<sup>2</sup>**.

### Recommended uses

- Felt roof overlays
- Asphalt roof overlays
- Gutter refurbishment
- New build inverted roofs
- New build warm roofs
- Detailing of awkward junctions



## Features & Benefits

- Fast curing: Skin formation time of 2 hours
- Bubble and defect free membrane
- Excellent weather and UV resistance. The light grey colour reflects solar energy and reduces the internal temperature of the building.
- Excellent thermal resistance, the product never turns soft. Recommended service temperature 80°C, max shock temperature 200°C
- Resistance to the cold: The membrane remains elastic even down to -40°C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance
- Good chemical resistance
- Moisture vapour transmission: The membrane breathes so there is no accumulation of humidity under the coat.
- Special primers available for almost every substrate.



## Technical specifications

In liquid form (before application):

Property	Units	Method	Specification
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	3500 - 5500
Specific weight	gr/cm <sup>3</sup>	ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C	1.3 - 1.4
Flash point	°C	ASTM D93, closed cup	42
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	2 - 3
Recoat time	hours	-	6 - 48

The cured membrane:

Property	Units	Method	Specification
Service temperature	°C	-	-40 to 80
Max. temperature short time (shock)	°C	-	200
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	70
Tensile strength at break @ 23 °C	Kg/cm <sup>2</sup> (N/mm <sup>2</sup> )	ASTM D412 / EN-ISO-527-3	65 (6,5)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 400
Water vapour transmission	gr/m <sup>2</sup> .hr	ASTM E96 (Water Method)	0.8
Tensile set (after 300% elongation)	%	ASTM D412	< 3%
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	Passed (2,000 hours)

## Application Uses

Can be successfully applied to: concrete, plywood, cement roof tiles, asphalt and felt roofs.

For information about other substrates, please contact our technical department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35°C.
- Relative humidity: < 85%.



## Application Procedure

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must be removed. Fill all surface irregularities and construction joints with FLS 107 Joint sealant (refer to separate data sheet).

### Priming

Apply the required primer following the guidelines in the application guide.

### Mixing

Use a low speed (300rpm) mixer.

## **Application**

Apply the material with roller or brush in one or two, coats depending upon the exact project specification. Do not exceed 48 hours between applications of coats. If more time passes, or if you are unsure of the interlayer adhesion, please contact our technical department.

***Please refer to the 'FLS Product Application Guide' for further information.***

## **Consumption**

Minimum total consumption **1.5 kg per m<sup>2</sup>**.

## **Cleaning**

Clean tools and equipment first with paper towels and then using FF860 Solvent Cleaner. Rollers will not be re-usable.

## **Packaging**

15kg or 25kg tins.

## **Shelf life**

Can be kept for 12 months maximum in the original unopened tins in dry places and at temperatures of 5°C to 25°C. Once a tin has been opened, use as soon as possible.

## **Precautions**

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. Refer to MSDS for further information.