MC-Proof PU 1000 (Previously known as MC-Floor Dictaflex 600)

Liquid Applied Elastic Waterproofing Membrane

Product Properties

- Single component, ready-to-use
- Water-based polyurethane-modified bitumen
- High tensile strength and crack-bridging capacity
- Highly elastic and flexible
- Cure to form a seamless elastomeric waterproof membrane
- Ideal for exposed roof slabs with complex geometry
- Impermeable to water
- Can be used on horizontal and vertical surfaces
- Good resistance to a wide range of acids and alkalis
- Low VOC and environmentally friendly

Areas of Application

- R.C flat roofs and roof gutters
- Roof gardens, landscape areas and planter boxes
- Exposed driveways, suspended slabs and rooftop car parks
- Balconies and terraces
- Retaining walls
- Lift pit walls

Certification

- SIRIM : BS 1881-122:1983 : Method for determination of water absorption

Application

Substrate Preparation

The substrate must be structurally sound and free from cement laitance, loose particles, dust, oil, grease and any other contaminants or old coatings which may affect the adhesion. Grind smooth all high spots and sharp protrusions. Surface defects such as honeycombs, blowholes, voids and cracks must be repaired and reprofiled to prepare a sound surface for bonding.

All corners, right-angle bends and wall-floor junctions must have a mortar angle fillet installed.

Priming

Dilute 1 part of MC-Proof PU 1000 with 1 part of clean water, mix until homogeneous consistency is obtained and prime the prepared surface using a brush or roller at 0.2 kg/m^2. Leave to dry for about 30 minutes before applying neat coats.

Neat Coats

Standard System

MC-Proof PU 1000 can be applied by using a brush, roller or spraying equipment. Once the priming coat has dried, apply a neat coat of MC-Proof PU 1000 at 0.65 kg/m². Leave to cure for approximately 8 hours prior to applying the second coat at the same rate in crosswise direction.

High-build System

Once the priming coat has dried completely, apply the first neat coat at 1.0 kg/m^2. Following this, lay a layer of reinforcement mat MC-CSM 100 onto the wet coating and embed it to thoroughly impregnate the mat. Make sure there are no air bubbles and creases. After approximately 8 hours, apply the final coat at 0.8 kg/m^2 to fully cover MC-CSM 100.

Please refer to the table overleaf for complete system information.

Protection and Curing

The freshly applied membrane must be protected from rain for a minimum of 2 hours. Full cure is minimum 24 hours after the final coat. Ponding test or protective screed laying may be carried out after full cure.

Cleaning

Clean all equipment, tools and hands with soap and water immediately after use. Hardened materials can only be mechanically removed.

Important Considerations

- Do not mix MC-Proof PU 1000 with other materials except with clean water for priming coat.
- Thoroughly agitate contents before use.
- Do not apply more than 1 kg/m² in one single layer.
- Substrates must be free from surface water prior to the application of MC-Proof PU 1000.
- Do not allow temporary ponding between coats or until the final coat has attained its full cure.
- As MC-Proof PU 1000 is not UV-resistant, for exposed areas, it must be protected with a layer of screed. For basement walls, protect against damages with 25-mm-thick polystyrene boards prior to backfilling.
- Not suitable for structures subject to permanent hydrostatic pressure such as swimming pools, ponds and water tanks.

System Structure

Standard System

Steps	Product	Consumption (kg/m²)	Overcoating time (hours)
Priming coat	MC-Proof PU 1000 : clean water = 1:1	0.20	0.5
Base coat	MC-Proof PU 1000	0.65	8
Finish coat	MC-Proof PU 1000	0.65	-
		Total : 1.5	

High-build System

Steps	Product	Consumption (kg/m²)	Overcoating time (hours)
Priming coat	MC-Proof PU 1000 : clean water = 1:1	0.2	0.5
Base coat	MC-Proof PU 1000 + MC-CSM 100	1.0	8
Finish coat	MC-Proof PU 1000	0.8	-
		Total : 2.0	

* Overcoating times are based on +25°C and 50% R.H.

Technical Data for MC-Proof PU 1000

Characteristics	Unit	Value	Comments
Specific Gravity		1.08	
Solid Content	%	73	by volume
Elongation at Break	%	1000	ASTM D412
Tensile Strength	N/mm^2	3.0	ASTM D412
Crack Bridging	mm	2	ASTM C835:00
Shore A Hardness		57	ASTM D2240:2005
Water Absorption	%	0.153	BS 1881-122:1983
Full Cure (after the final coat)	hours	24	at 25°C
Consumption	kg/m²	0.20 0.75	priming coat neat coat
Application Conditions	°C °C % °C	+5 to +35 +5 to +35 ≤ 80 3	ambient temperature substrate temperature relative humidity (RH) above dew point

Product Characteristics for MC-Proof PU 1000

Colour	Dark brown
Delivery	20 kg pail
Storage	Can be stored in cool and dry conditions for **12 months** in original unopened packs.
Disposal	In the interest of the environment, please empty all containers completely & in accordance with the local regulations.

Safety Advice

1. Fire : Non-flammable
2. Skin : Wear gloves. If contact occurs, wash with soap and water.
3. Eyes : Wear goggles. If eyes become contaminated, irrigate with copious amounts of water and seek medical assistance immediately.
4. Ensure adequate ventilation during use.