

MasterSeal® M 640

Flexible and elastic single component polyurethane waterproofing membrane

DESCRIPTION

MasterSeal M 640 Membrane is a single component, polyurethane based, elastomeric coating for roof waterproofing.

RECOMMENDED USES

MasterSeal M 640 Membrane is recommended for:

- Applicable for both inside and outside use
- Can be employed on concrete and cement mortar.
- Waterproofing of roofs, balconies and terraces.

Contact your local Master Builders Solutions office regarding any application required not mentioned here

FEATURES AND BENEFITS

- **High elasticity and flexibility** – moves with structure.
- **Excellent adhesion to concrete and mortar** - Fully bonded system.
- **Impermeable to water and carbon dioxide** - protects from corrosion of the steel.
- **Easy to apply.** Single component and low viscosity.
- **Excellent crack bridging capacity** - even at low temperatures.
- **Monolithic** – no laps, welds or seams.
- **Fast Application** - Can be re-coated after only a few hours

PERFORMANCE DATA

Shore A hardness: (ASTM D 2240)	Approx. 65±5
Crack bridging (EOTA TR 008)	>2mm
Elongation at break: (DIN 52455)	Approx. 600%
Tensile strength: (DIN 52455)	> 4 MPa
Adhesion to concrete: (ASTM D 903)	> 2 N/mm ²
Water vapour permeability: (ISO 9932: 91)	Approx. 25 g/m ² /day

Solar Reflectance (SR) (ASTM E 903-96)	0.87
Solar Emittance (ASTM E 408 -71)	0.89
Application temperature (support and material)	From +5 to +35 °C
Open to pedestrian traffic	Approx. 12 hours
Fully Cured:	After 7 days

PROPERTIES

Density	1.32 g/cm ³
Solid Content	83%
Working Time @ 20°C	40 minutes
Re-coating interval @20°C	Min. 12 hours Max 48 hours
Rain Safe @ 20°C	4 Days
Service temperature:	From -20 to +80 °C

Higher temperatures and/or higher R.H. can shorten these times, and vice versa.

APPLICATION

Application method

(a) Surface Preparation: All substrates (new and old) must be structurally sound, dry, and free of laitance and loose particles.

Clean of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

Profile mechanically the surface by shot blasting, high pressure water jetting or other suitable mechanical preparation method.

After surface preparation the tensile strength of the substrate should exceed 0.7 N/mm² (check with an approved pull-off tester).

Temperature of the substrate should be minimum +5°C and maximum +35°C. The residual moisture content of the substrate must not exceed 4% (check with e.g. CM device). The temperature of the substrate must be at least 3°C above the current dew point temperature. Try to keep the temperatures uniform during application and hardening.

MasterSeal[®] M 640

(b) Primer: Suitable primer for using **MasterSeal M 640** on concrete or cementitious mortar substrates is **MasterSeal P 2525** or **MasterEmaco P 2525**. Refer to PDS for application guidelines.

(c) Mixing: **MasterSeal M 640** is a single component product. Does not require mixing. Homogenize with mechanical stirring before use.

(d) Application: **MasterSeal M 640** is applied in two coats using a brush, a short hair roller or an air-less spray gun. After mixing pour the contents of **MasterSeal M 640** on to the primed substrate and spread with a roller or brush at a minimum consumption of 0.7 Kg/m² per layer. After a gap of minimum 12 hours and maximum 36 hours apply second layer of the **MasterSeal M 640** Membrane. If needed, apply a third layer of the **MasterSeal M 640** Membrane.

(e) Reinforcement: In joints or any singular points like wall floor connections, chimneys, pipes, etc. reinforce **MasterSeal M 640** with a mat installed on the still wet material. Press it to soak and saturate again with enough **MasterSeal M 640**.

(f) Topcoat: **MasterSeal M 640** does not have sufficient UV and Weather resistance to be used in exposed applications without protection. In exposed conditions apply one or two coats of **MasterSeal TC 640**. Refer to PDS for application guidelines. **MasterSeal TC 640** can be broadcasted with dry silica sand to provide a hard wearing, slip resistant finish.

For best performance:

- The product must not be applied when the temperature is below +10°C or above 30°C.
- Do not mix solvents, sand or other products that could affect the products properties must not be added.
- Do not apply in more than 0.6mm thickness per layer.
- It is recommended to use a reinforcement mat. If an application without this mat is required, apply three coats of products.

ESTIMATING DATA

Consumption: Normally Approx. 1.5 to 2.5 kg/m² are required in two coats depending on chosen application method. These consumptions are theoretical and can vary according to the application conditions. It is essential to carry out representative trials on site to evaluate the exact consumption.

PACKAGING

MasterSeal M 640 is available in 25kg pails.

Colour: White, Grey and Red.


SHELF LIFE

MasterSeal M 640 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders solutions Material Safety Data Sheet (MSDS) from our office or our website.

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CE-MARKING (ETAG 005)	
	
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Master Builders Solutions Coatings GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
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464001	
ETAG 005 – Part 6	
Liquid applied roof waterproofing kits based on polyurethane resin	
Water vapour diffusion resistance factor μ	1830
Resistance to wind loads	> 50 kPa
Resistance to spreading fire and radiant heat	NPD
Reaction to fire	Class E
Statement on dangerous Substances	Does not contain any
Working Life	W2
Climatic Zones	M and S
Imposed Loads	P1 to P3
Roof Slope	S1 to S4
Lowest surface temperature	TL3
Highest surface temperature	TH3
NPD = No performance determined. Performance determined in system build up MasterSeal Roof 2164	

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STATEMENT OF RESPONSIBILITY

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NOTE

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