



The Chemical Company

MASTERSEAL[®] 640 Membrane

Flexible and elastic single component polyurethane waterproofing membrane

DESCRIPTION

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

FIELDS OF APPLICATION

MASTERSEAL 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 the Technical Service of your local BASF Construction Chemicals office regarding any application required not mentioned here.

FEATURES AND BENEFITS

- High elasticity and flexibility.
- Excellent adhesion to concrete and mortar. Fully bonded system.
- Once hardened it is impermeable to water and carbon dioxide.
- Tar free.
- Easy to apply. Single component and low viscosity.
- Excellent crack bridging capacity even at low temperatures.
- Monolithic – no laps, welds or seams.
- High water vapor permeability – low risk of blistering.
- Excellent mechanical properties.
- Resistant to standing water.
- Can be re-coated after only a few hours.

TYPICAL PERFORMANCE DATA

Density	: Approx. 1.3 g/cm ³
Application temperature (support and material)	: From +5 to +35 °C
Water vapour permeability	: Approx. 28 g/m ² /day
Permissible moisture on the support	: Max. 4%
Re-coating interval	: Min. 12 hours Max. 36 hours
Open to pedestrian traffic after	: Approx. 12 hours
Fully cured	: After 7 days
Service temperature	: From -20 to +80 °C
Crack bridging	: Up to 2mm
Elongation at break	: Approx. 650%

Tensile strength	: Approx. 6 MPa
Shore A hardness	: Approx. 65
Adhesion to concrete	: > 2 N/mm ² (concrete cohesive failure)

Hardening times are measured at 22°C and 65% R.H. Higher temperatures and/or higher R.H. can shorten these times, and vice versa.

The technical data provided are the outcome of statistical results and do not represent guaranteed minima.

APPLICATION

Application method

(a) Support: 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 1 N/mm² (check with an approved pull-off tester).

Temperature of the support 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.

(b) Primer: Suitable primer for using MASTERSEAL 640 Membrane on concrete or cementitious mortar substrates is MASTERSEAL 640 Primer. Refer to PDS for application guidelines.

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

(d) Application: **MASTERSEAL 640 Membrane** is applied in two coats using a brush, a short hair roller or an air-less spray gun. After minimum 12 hours and maximum 36 hours apply second layer of the MASTERSEAL 640 Membrane. If needed, apply a third layer of the **MASTERSEAL 640 Membrane**.

(e) Reinforcement: In joints or any singular points like wall/floor connections, chimneys, pipes, etc. reinforce

BASF Construction Chemicals offices in ASEAN

Singapore

Tel :+65-6861-6766
Fax :+65-6861-3186

Malaysia

Tel :+60-3-5628-3888
Fax :+60-3-5628-3776

Indonesia

Tel :+62-21-526-2481
Fax :+62-21-526-2541

Thailand

Tel :+66-2204-9427
Fax :+66-2204-9267

Vietnam

Tel :+84-650-3743-100
Fax :+84-650-3743-200

Philippines

Tel :+63-2-811-8000
Fax :+63-2-811-1025

MASTERSEAL[®] 640 Membrane

MASTERSEAL 640 Membrane with a mat installed on the still wet material. Press it to soak, and saturate again with enough MASTERSEAL 640 Membrane.

(f) Top Coat: MASTERSEAL 640 Membrane is required when colour stable and chalk free surface is needed especially a dark final colour is desired.

Apply one or two coats of MASTERSEAL 640 Topcoat.

Refer to PDS for application guidelines. MASTERSEAL 640 Topcoat 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.

CLEANING

While still wet with solvent (e.g. solvent naphtha). Once cured it can only be removed mechanically.

ESTIMATING DATA

Consumption: Approximately two coats applications required 1.5 to 2.5 kg per square metre. 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 640 Membrane is available in 25kg pails.

Colour: White, grey and red.

SHELF LIFE

Store in cool and dry warehouse conditions. Shelf life in these conditions is 9 months in unopened original containers.

PRECAUTIONS

EU Regulation 2004/42 (Decopaint Guideline)

This product conforms to the EU directive 2004/42/EG (Deco-Paint directive) and contains less than the maximum allowable VOC limit (Stage 2, 2010) that according to the EU directive 2004/42 for the Product Category IIA / j is 500 g/l (Limit: Stage 2, 2010). The VOC content for **MASTERSEAL 640** is < 500 g/l.

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

For Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

AN/MS640M/v2/120411

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF Construction Chemicals** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.