MasterCoat® ER 373

Epoxy Based, Solvent Free, Pigmented Topcoat for Car Parking Systems and Industrial Floors with Broadcasted Surface

Material Description

MasterCoat® ER 373 is a solvent free (total solid), low viscosity, lightly elasticized, 2K epoxy top coat. It cures to a tough, hard wearing and glossy finish.

Areas of Application

MasterCoat® ER 373 is is primarily used as the top coat in certain car park water-proofing systems. It also finds use in certain floor coating systems.

Characteristics and Benefits

- High wear resistance
- Lightly elasticized
- Attractive finish
- Easy to clean and maintain
- Low viscosity
- Easy to apply

Processing Method

(A) Preparation of Substrate

The concrete substrates on which the product is going to be applied should be C25 or dosage of 350 minimum and the concrete should be 3 weeks old at least. After the preparation of the surface, the tensile strength of the substrate should exceed 1.5 N/mm2 (tested with an approved pull-off tester at a load rate of 100 N/s). The residual moisture content of the substrate should not exceed 4% (tested with e.g. CM device). A damp proof course should be installed properly and be inact. The substrate temperature should remain +8°C minimum and the temperature of the substrate should at least be 3 K above the current dew point. All substrates should be structurally sound, dry and clean. Oil, grease and other adhesion impairing contaminants should be removed Bubble formation on the surfaces which absorbed oil should be removed with the usage of a blastrack or rotatiger.
Oil contaminated substrates should first be pre-cleaned with an emulsifying cleaning detergent according to the supplier's instructions. Finally, the concrete or cement screed surface should be cleaned by using a high pressured water jet and excess water should be removed by a wet/dry vacuum

Technical Properties	
Structure of the Material **MasterCoat® ER 373** Part A **MasterCoat® ER 373** Part B	 Epoksi Resin Epoksi Hardener
Density	1,4 g/cm^3
Viscosity	1600 – 2000 mPa.s
Pot Life	40 mins.
Re-coating Interval	Min. 8 hours Max. 3 days
Fully Cured	5 days
Substrate and Application Temperatures (^{0}C)	Min. 8 Maks. 40
Max. Permissible Relative Humidity	Max. 85 %
Shore D hardness (14 days)	72
Taber Abrasion (7 days)	55 mg

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.

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cleaner. Application should take place within the recoat intervals of the coating to which it is to be applied.

(B) Mixing

MasterCoat® ER 373 is supplied as ready-to-use kits in the exact ratio. Before mixing, precondition both A and B parts to the temperature of approximately +15°C - +25°C. **MasterCoat® ER 373** part A is pigmented. Mix the part A with an epoxy/polyurethane paddled drill at 300 - 400 rpm for 3 - 4 minutes until a homogenous color is obtained without causing air bubbles. Pour the entire contents of part B into the container of part A; make sure that there is no product left in the part B package. Scrape the sides and the bottom of the container well to ensure a thorough mixing. After mixing **MasterCoat® ER 373** parts for 3 - 4 minutes, pour the mix into a fresh container, set it aside for a while and mix for another minute.

Mixing Ratio

MasterCoat® ER 373	Part A	Part B
Mixing Ratio	24,4 kg	5,6 kg
Mixed Density	1,4 g/cm³	

(C) Processing

MasterCoat® ER 373 should be spread evenly with a squeegee followed by back rolling.

Consumption

Ca. 0.5 - 0.8 kg/m²

Intended Use	Materials	Consumption (kg/m²)
Primer Scatter Sand Alternative Primer Filler Sand Scatter Sand	**MasterCoat® PRI 677** Silica Sand No:2 **MasterCoat® PRI 677** Silica Sand No:3 Silica Sand No:2	0,35–0,50 1,00-1,50 0,35-0,50 0,35-0,50 1,00-1,50
Pore Sealer	**MasterCoat® ER 373**	0,30-0,40
Body Coat	**MasterCoat® ER 373**	0,30-0,40

Point to Consider

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10°C or above +30°C.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +20°C - +25°C to become ready to use.
- Epoxy and polyurethane based floor coatings should be applied by specialists.
- Mixing should be done with a mechanical drill at 300-400 rpm with epoxy/polyurethane mixing paddles. **MasterCoat® ER 373** is supplied in working packs which are pre-packaged in the exact ratio. No solvent should be added.
- DO NOT MIX BY HAND.
- After the first mix, contents should be poured into a clean container and mixed once again.
- The empty packs should be consolidated and disposed properly in order to prevent reusing of the packages.
- The reaction and workability times of resin based systems depend on the ambient and substrate temperatures as well as the relative humidity. Under lower temperatures, the chemical reaction times are prolonged and this increases the pot life, coating interval and the working time. In addition to this, the consumption is increased as the viscosity increases. High temperatures ignite stronger chemical reactions and the above mentioned times decrease accordingly. For the material to be cured properly, the ambient and the substrate temperatures should not fall below the specified limits. After the application, the material should be protected from direct contact with water for 24 hours minimum. Within this period, a contact with water may cause a surface carbonation and/or tackiness; both of which will cause the coating to lose its characteristics. In such cases, the overall coating should be removed from the floor and renewed.

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Cleaning of Tools

In its fresh state, the used tools can be cleaned with water. Used tools and equipment must be cleaned carefully with an appropriate solvent. Once cured **MasterCoat® ER 373** can only be removed by mechanical means.

Packaging

MasterCoat® ER 373 is supplied in 30 kg working packs.
Part A: 24.4 kg
Part B: 5.6 kg

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Storage

Must be stored in unopened original packing, and in cool and dry environment protected from freezing. In short-term storing, maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

Health and Safety

In its cured state, **MasterCoat® ER 373** is physiologically non-hazardous. The following protective measures should be taken when working with the material:
Wear safety gloves, goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye contact, seek medical attention. Avoid inhalation of the fumes. When working with the product do not eat, smoke or work near a naked flame. For additional references to safety-hazard warnings, regulations regarding transport and waste. The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling epoxy resins must be observed.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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