

# MC-DUR PowerCoat 280

Extremely heavy-duty PU/mineral hybrid floor



## PRODUCT PROPERTIES

- Layer thickness 8-12 mm
- Squeegeeable
- Very high mechanical and chemical load-bearing capacity
- Very high impact resistance
- Temperature resistant up to 120 °C (from a layer thickness of 9 mm)
- Resistant to high-pressure and steam jet cleaning (from a layer thickness of 9 mm)
- Solvent-free
- Slip resistance individually adjustable

## AREAS OF APPLICATION

- Food industry
- Metal and chemical industry
- Washing and tank interior cleaning facilities
- REACH-rated exposure scenarios: Inhalation: periodically, Water contact: periodically, Processing

## APPLICATION ADVICE

**Substrate preparation:** See instruction leaflet "Substrate and Substrate Preparation". For surfaces with hot loads (> 60 °C), reaction resin-bonded and bituminous layers are not permitted in the substrate.

**Bonding grooves:** To prevent the coating from cupping, bonding grooves (depth and width of the bonding grooves = at least twice the layer thickness) must be cut into the substrate close to the edge on all free edges of a day section and on all components penetrating the coating.

**Primer:** MC-DUR PowerCoat 200, see leaflet "MC-DUR PowerCoat 200". In any case, sprinkle the primer with fire-dried quartz sand (grain size 0.5 - 1.2 mm).

**Mixing:** MC-DUR PowerCoat 280 consists of four components, component A (base), component B (hardener), component C (aggregate) and MC-DUR PowerCoat Color component D (pigment), which are supplied in containers with matching quantities. Shake the containers of components A and B before use. First put component A into a clean mixing vessel and stir in component D MC-DUR PowerCoat Color (pigment). Then stir in component B. Stir the liquid components with a slow-running stirrer for approx. 1 minute until a homogeneous, streak-free mixture is obtained. The aggregate (component C) is now added to the premixed resin components and mixed homogeneously. The use of a compulsory mixer is required for mixing the resin components with the aggregate. The mixing time depends on the prestorage temperature of component C. At 18 to 22 °C, a mixing time of 3 minutes must be observed.

**Application:** MC-PowerCoat 280 is poured onto the substrate after mixing and spread by means of a squeegee set to the desired layer thickness. The fresh coating is to be rolled off without gaps using a spiked roller. The material of the following mixture is to be worked onto all free edges of the coating within 10 minutes. Material that has already been laid and is older than 10 minutes must not be rolled again with the spiked roller. To achieve non-slip surfaces, immediately after de-aerating with the spiked roller, the surface is continuously sprinkled with an oven-dried quartz sand (grain size depending on the required roughness) - first lightly and then in excess. The sprinkling should be completed at the latest 20 minutes after MC-DUR PowerCoat 280 has been applied.

**Coving mortar:** MC-DUR PowerCoat mortar is suitable for creating coving and coating vertical surfaces. To prepare the mortar, add 5 kg quartz sand 0.1 - 0.3 mm and 250 g MC-adjusting agent TX 19 to component C MC-DUR PowerCoat 280. Then mix all components with a double-barreled agitator as described above. The ready mixed material must be applied within the specified working time (approx. 15 minutes at 20 °C and 50 % relative humidity). At least three installation sites are recommended for this purpose.

**Important notes:** The optimum temperature of the components during mixing and processing is between 15 and 25 °C. In addition to the material temperature, the temperature of the substrate is important when working with PU/mineral hybrid floors. At low temperatures, the chemical reactions are delayed; this also extends the recoating and walkability times. At the same time, the viscosity increases. At high tempera-

## APPLICATION ADVICE

tures, the chemical reactions are accelerated, so that the times listed in the table are shortened accordingly. The resulting surface structure is strongly dependent on the construction site conditions as well as the processing. Due to the short reaction time, the coating measures must be well planned and prepared. Consumption quantities, application time, walkability and achievement of load-bearing capacity depend on the temperature and project conditions. Please refer to the information sheet "Processing of Reactive Resins". Please observe the further notes in the section "Processing of Reactive Resins" with regard to batch colour consistency. PU/mineral hybrid floors are functional floor coatings and are not colour-stable. Chemical stress and exposure to light can lead to changes in colour shade, which generally do not affect the suitability for use. It is recommended to regularly check and maintain chemically and mechanically stressed surfaces.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic                       | Unit                  | Value                   | Comments  |
|--------------------------------------|-----------------------|-------------------------|---|
| Mixing ratio                         | mass fractions        | 2.5 : 2.6 : 24.9 : 0.15 | base component : Hardener component : aggregate : pigment |
| Density                              | g/cm <sup>3</sup>     | 2.1                     |   |
| Working time                         | minutes               | 15                      | at 20° C and 50 % rel. humidity                           |
| Flexural strength                    | N/mm <sup>2</sup>     |                         | at 20° C and 50 % rel. humidity                           |
| 7 d                                  |                       | approx. 16              |   |
| Compressive strength                 | N/mm <sup>2</sup>     |                         | at 20° C and 50 % rel. humidity                           |
| 7 d                                  |                       | approx. 55              |   |
| Accessible after                     | hours                 | approx. 8               | at 20° C and 50 % rel. humidity                           |
| Resilient after (full)               | hours                 | 24                      | at 20° C and 50 % rel. humidity                           |
| Application conditions <sup>1)</sup> | °C                    | > 10 < 30               | air and substrate temperatures                            |
|                                      | %                     | < 85                    | rel. humidity   |
|                                      | K                     | 3                       | above dew point   |
| Consumption                          | kg/m <sup>2</sup> /mm | approx. 2.1             |   |

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

1) Viscosity and consumption depending on material temperature.

|   |   |
|---|---|
| Equipment cleaning agent                    | MC-Verdünnung PU  |
| Colour                                      | light grey, red, green, yellow  |
| Delivery form                               | Component A: 2.5 kg canister<br>Component B: 2.6 kg canister<br>Component C: 24.9 kg paper bag<br>MC-DUR PowerCoat Color: 150 g bag (20 pieces per box)     |
| Storage                                     | Can be stored in cool (below 20°C) and dry conditions for 12 months in original unopened packs. Protect from frost. Component C can be stored for 9 months. |
| Packaging disposal                          | Make sure single-use containers are completely empty.   |
| EU Regulation 2004/42 (Decopaint Directive) | RL2004/42/EG All/j (500 g/l) < 500 g/l VOC  |

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : PU40

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300019418]