

2C-PU wear coat, pigmented, for use in car park deck systems

### **MATERIAL DESCRIPTION**

MasterSeal M 276 is a two component, polyurethane coating. It is both tough and elastic and has an excellent bond to the elastomeric waterproofing membranes used in car park waterproofing systems. It has a tenacious hold onto the broadcast aggregate providing a hard wearing, skid resistant surface.

### **AREAS OF APPLICATION**

MasterSeal M 276 forms the wear coat in the MasterSeal Traffic 2255 and 2265 car park deck waterproofing systems. These systems meet the requirements of the German OS 13 and OS 8 specifications respectively. MasterSeal M 276 also forms the wear coat in the system MasterSeal Traffic 2263 which meets the requirements of the German OS 11 (OS F) build up "a" specification for coatings with increased dynamic crack bridging properties capable of bearing pedestrian and vehicular traffic.

## FEATURES AND BENEFITS

- tough end elastic
- excellent bond to waterproofing membrane
- tenacious hold to broadcast aggregate.
- withstands loads imposed by traffic.
- resistant to fuels, battery acid and hydraulic oils

#### APPLICATION METHOD (a) Surface Preparation

The preparation of the substrate and the use of the appropriate primer are of paramount importance. All surfaces to which MasterSeal M 276 is applied should be sound, clean and dry and free from oil or grease, loose particles and any other substances which may impair adhesion. For substrate pre-treatment prior to the primer application see primer technical data sheet.

Important: MasterSeal M 276 is unsuitable for use as a tie coat to cementitious overlays

## (b) Mixing

MasterSeal M 276 is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both the A and B components to a temperature of approximately 15 to 25 °C.

Pour the entire contents of Part B into the container of Part A. DO NOT MIX BY HAND. Mix with a mechanical drill and paddle at a low speed (approx. 300 rpm) for at least 3 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer bladed fully submersed in the coating to avoid introducing air bubbles. DO NOT WORK OUT OF THE ORIGINAL CONTAINER. After proper mixing to a homogeneous consistency, pour the mixed Parts A and B into a clean container and mix for a further minute.

## (c) Application

MasterSeal M 276 is poured onto the prepared substrate and spread with a notched trowel, or spreader (rubber or steel). The curing time of the material is influenced by the ambient, material and substrate temperatures. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum. Following application the material should be protected from direct contact with water for approx. 16 hours. The temperature of the substrate must be at least 3 K above the dew point both during the application and for at least 16 hours after application (at 15 °C).

## COVERAGE

Min. 1.2 kg/m<sup>2</sup>. Please note the specific System Data Sheet.

#### **FINISHING AND CLEANING**

Reuseable tools should be cleaned carefully with Cleaner 40 or e.g. solvent naphtha.

## PACKAGING

MasterSeal M 276 is supplied in 30-kg-working packs.

#### COLOUR

MasterSeal M 276 is available in grey (approx. RAL 7037).

#### **STORAGE / SHELF LIFE**

Store in original containers under dry conditions at a temperature between 15 – 25 °C. Do not expose to direct sunlight. For maximum shelf life under these conditions see "Best before......" label.

## WATCH POINTS

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)

According to the EU directive 2004/42, the maximum allowable VOC content for the Product Category IIA / j is 500 g/l (Limit: Stage 2, 2010). The VOC content for MasterSeal M 276 is < 500 g/l (for the ready to use product).



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### **HANDLING / PRECAUTIONS**

In its cured state, MasterSeal M 276 is physiologically nonhazardous. The following protective measures should be taken when working with this material:

Wear safety gloves, goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye con¬tact, seek medical attention. Avoid inhalation of 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 management, please refer to the relevant Material Safety Data Sheet. The regulations of the local trade as¬sociation and/or other authorities regarding safety and hy¬giene of workers handling polyurethanes and isocyanates must be observed.

### DISCLAIMER

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### **CONTACT INFORMATION**

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MasterSeal<sup>®</sup> M 276 Technical Data Sheet -Revision Date: 06/2023



## 2C-PU wear coat, pigmented, for use in car park deck systems

| Product data*                      |                                  |          |                      |              |                   |
|------------------------------------|----------------------------------|----------|----------------------|--------------|-------------------|
| Properties                         |                                  | Standard | Data                 | a            | Unit              |
| Chemical base                      |                                  | -        | Polyuret             | hane         | -                 |
| Mixing ratio                       |                                  | A : B    | 5 : 1                |              | -                 |
| Density                            |                                  | -        | 1.45                 | 5            | g/cm <sup>3</sup> |
| Viscosity                          |                                  | -        | 250                  | )            | mPas              |
| Working time (30 kg unit)          | at 10 °C<br>at 20 °C<br>at 30 °C | -        | 4(<br>3(<br>2(       | )<br>)       | min<br>min<br>min |
| Re-coating interval                | at 10 °C<br>at 12 °C<br>at 23 °C | -        | min.<br>min.<br>min. | 12<br>9<br>6 | h<br>h<br>h       |
| Fully cured                        | at 10 °C<br>at 12 °C<br>at 23 °C | -        | 8 d<br>7 d<br>5 d    |              | d<br>d<br>d       |
| Substrate and ambient temperatures |                                  | -        | min. 8<br>max. 35    |              | 0°<br>0°          |
| Permissible relative humidity      |                                  | -        | max. 80              |              | %                 |

## Product data after curing\*

| Properties       | Standard  | Data | Unit              |
|------------------|-----------|------|-------------------|
| Shore-D-hardness | DIN 53505 | 50   | -                 |
| Tensile strength | DIN 53504 | 6    | N/mm <sup>2</sup> |
| Elongation       | DIN 53504 | 65   | %                 |

\* The above figures are intended as a guide only and should not be used as a basis for specifications.



## 2C-PU wear coat, pigmented, for use in car park deck systems

## **CE-MARKING (EN 1504-2)**

| CE  |                                 |  |  |
|---|---------------------------------|--|--|
| 1119  |                                 |  |  |
| Master Builders Solutions                           | Deutschland GmbH                |  |  |
| Donnerschweer Str. 372, D                           | -26123 Oldenburg                |  |  |
| 08  |                                 |  |  |
| 237602  |                                 |  |  |
| EN 1504-2:2004                                      |                                 |  |  |
| Surface protection product - coatings               |                                 |  |  |
| EN 1504-2: ZA.1d, ZA.1e,                            | ZA.1f and ZA.1g                 |  |  |
| Abrasion resistance                                 | ≤ 3000 mg                       |  |  |
| Permeability to CO <sub>2</sub>                     | Sd > 50                         |  |  |
| Permability to water vapour                         | Class II                        |  |  |
| Capillary absorption and per-<br>meability to water | < 0.1 kg/(m²xh <sup>0,5</sup> ) |  |  |
| Thermal compatibility after<br>freeze-thaw cycling  | ≥ 1.5 N/mm²                     |  |  |
| Resistance to severe chemical                       | Reduction of hard-              |  |  |
|   |                                 |  |  |
| Crack bridging ability                              | B 3.2 (-20° C)                  |  |  |
| Impact resistance                                   | Class I                         |  |  |
| Adhesion strength by pull-off test                  | ≥ 1.5 N/mm²                     |  |  |
| Reaction to fire                                    | Crl-s1                          |  |  |
| Skid resistance                                     | Class III                       |  |  |

NPD = No performance determined. Performance determined in system build up **MasterSeal Traffic 2263.** 

## **CE-MARKING (EN 13813)**

| CE  |             |  |  |
|---|-------------|--|--|
| Master Builders Solutions Deutschland GmbH<br>Donnerschweer Str. 372, D-26123 Oldenburg |             |  |  |
| 08  |             |  |  |
| 237602  |             |  |  |
| EN 13813: 2002  |             |  |  |
| Synthetic resin screed for use internally in<br>buildings<br>EN 13813: SR-B1,5-AR1-IR4  |             |  |  |
| Essential characteristics   | Performance |  |  |
| Fire behavior   | Efl         |  |  |
| Release of corrosive<br>substances  | SR          |  |  |
| Water permeability  | NPD         |  |  |
| Wear resistance   | < AR 1      |  |  |
| Bond strength   | > B 1,5     |  |  |
| Impact resistance   | > IR 4      |  |  |
| Impact sound insulation   | NPD         |  |  |
| Sound absorption  | NPD         |  |  |
| Heat insulation   | NPD         |  |  |
| Chemical resistance   | NPD         |  |  |
| Slip/Skid resistance  | NPD         |  |  |
| Emissions behavior  | NPD         |  |  |

NPD = No performance determined. Performance determined in system build up **MasterSeal Traffic 2263** 



# MasterSeal® TC 373

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

### **DESCRIPTION OF PRODUCT**

**MasterSeal<sup>®</sup> TC 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.

#### FIELDS OF APPLICATION

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

-MasterSeal® Traffic 2255 -MasterSeal® Traffic 2262 -MasterSeal® Traffic 2263 -MasterSeal® Traffic 2266 -MasterSeal® Traffic 2264 -MasterSeal® Traffic 2271 -MasterTop® 1272

-MasterTop® 1324-R

## FEATURES AND BENEFITS

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

#### APPLICATION PROCEDURE 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 precleaned 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 cleaner.

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

#### Mixing

**MasterSeal® TC 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. **MasterSeal® TC 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 **MasterSeal® TC 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 Ratios

| MasterSeal® TC 373 | Part A Part B |        |  |
|--------------------|---------------|--------|--|
| Mixing Ratio       | 24,4 kg       | 5,6 kg |  |
| Mixed Density      | 1,43 kg/lt    |        |  |

| MasterSeal <sup>®</sup> TC 373 Part A<br>MasterSeal <sup>®</sup> TC 373 Part B | Epoxy Resin<br>Epoxy Hardener |
|--|-------------------------------|
| Density  | 1,43 gr/cm <sup>3</sup>       |
| Permisible Ambient and Substrate Temperatures                                  | Min. 8°C Max. +40°C           |
| Relative Humidity  | Max. 85%                      |
| Pot Life   | 35 Min.                       |
| Recoating Interval   | Min. 8 h<br>Max. 3 d          |
| Fully Cured<br>Viscosity   | 5 days<br>1500 mPa.s          |
| Shore D Hardness (14 days)   | 72                            |
| Tber Abrasion Resistance (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.





# MasterSeal® TC 373

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

## **APPLICATION METHOD**

**MasterSeal® TC 373**, should be spread evenly with a squeegee followed by back rolling.

### WATCH POINTS

- 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.
- 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.
- **MasterSeal® TC 373** is supplied in working packs which are pre-packaged in the exact ratio. No solvent should be added.
- Mixing should be done with a mechanical drill at 300-400 rpm with epoxy/polyurethane mixing paddles.
- 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.

### **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 **MasterSeal® TC 373** can only be removed by mechanical means.

## PACKAGING

**MasterSeal® TC 373** is supplied in 30 kg working packs. Part A: 24.4 kg Part B: 5.6 kg

## COVERAGE

ca. 0.5 - 0.8 kg/m<sup>2</sup>

| Intended Use       | Materials                      | Consumption<br>(kg/m <sup>2</sup> ) |
|--------------------|--------------------------------|-------------------------------------|
| Primer             | MasterTop <sup>®</sup> P 677   | 0,35–0,50                           |
| Scatter Sand       | Silica Sand No:2               | 1,00-1,50                           |
| Alternative Primer | MasterTop <sup>®</sup> P 677   | 0,35-0,50                           |
| Filler Sand        | Silica Sand No:3               | 0,35-0,50                           |
| Scatter Sand       | Silica Sand No:2               | 1,00-1,50                           |
| Pore Sealer        | MasterSeal <sup>®</sup> TC 373 | 0,30-0,40                           |
| Body Coat          | MasterSeal <sup>®</sup> TC 373 | 0,30-0,40                           |

### 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.

#### HEALTH AND SAFETY PRECAUTIONS

It is dangerous to approach the application sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Precautions Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

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MasterSeal® TC 373 Technical Data Sheet -Revision Date: 12/2020

| CE   |   |  |  |
|--|---|--|--|
| 10   | 20  |  |  |
| Master Builders Solut  | ions Yapı Kimyasalları  |  |  |
| Sanayi ve Tio  | caret Ltd. Ști.   |  |  |
| Adres: Barbaros Mah. Begonya Sok. Nidakule Kuzey Ataşehir, C<br>Kanısı   |   |  |  |
| No:3 E/5, 34746 Atasehir İstanbul  |   |  |  |
| 2  | o   |  |  |
| DOP NO : 02.1504.2.027<br>1020 – CPR – 040 065838<br>EN 1504-2: 2004<br>MASTERSEAL TC 373<br>Beton Yanıların Korunması ve Tamiri İçin Mamuller ve  |   |  |  |
| Siste  | mler.   |  |  |
| Bölüm:2 Beton için Yü<br>(Products and systems for   | zey Koruma Sistemleri   |  |  |
| concrete s   | structures  |  |  |
| Part 2: Surface protection   | on systems for concrete)  |  |  |
| 1.3 Yabancı madde girişine karşı koruma, 2.2 Nem<br>Kontrolü, 5.1 Fiziksel Direnç, 8.2 Nem içeriğini sınırlayarak<br>direnci artırma amaçlı kaplama malzemesi<br>(Principles: 1.3 Protection against ingress: 2.2 Moisture |   |  |  |
| control, 5.1 Physical resistar   | ice, 8.2 Increasing resistivity   |  |  |
| CO₂ Geçirgenliği<br>(Permeability to CO2)  | CO₂ S⊳ Geçirgenliği > 50m<br>(CO2 SD permeability ><br>50m)   |  |  |
| Su Buharı Geçirgenliği<br>(Permeability to water<br>vapour)  | Sınıf III<br>(Class III)  |  |  |
| Kapiler Su Emme ve Su<br>Geçirgenliği<br>(Capillary absorption and<br>permeability to water)   | w<0,1 kg /m².√h   |  |  |
| Çekip Koparma Deneyi<br>Yoluyla Yapışma Dayanımı<br>(Adhesion strength by pull-<br>off test)   | Rigid Systems<br>Trafik yüküyle birlikte:≥2,0<br>N/mm²(1,5 min)<br>(Rigid Systems<br>With trafficking:≥2,0<br>N/mm²(1,5 min)) |  |  |
| Aşınma Direnci<br>(Abrasion Resistance)  | Ağırlık Kaybı <3 g  |  |  |
| Çarpmaya Direnç<br>(Impact resistance)   | Deformasyon yok<br>(No deformation)   |  |  |
| Yangına karşı tepki<br>(Reaction to fire)  | B-s1;d0   |  |  |
| Tehlikeli maddeler<br>(Dangerous substances)   | Madde 5.4 ' e uygun<br>(Comply with clause 5.4)   |  |  |