

# TECHNICAL DATA SHEET

## MICRO CEM



ADHESIVES • PLASTERS • THERMAL INSULATION

### High-tech covering for decoration of walls, floors and ceilings

*Innovative designer covering for interior and exterior  
application*

#### PURPOSE

**MICRO CEM** is a covering system based on series of special two-component products – micronized cements and co-polymers. The combination between these micro-cements, special primers and polyurethane coatings, creates highly-effective covering with rich variety and wide application.

The final product features exceptional strength, 100% water-repellence and high wear-resistant.

Due to the high-strength characteristics and the excellent adhesion to any type of building surfaces, **MICRO CEM** has wide application for indoor and outdoor floor coverings. The product's resistance to running water and high humidity, determine **MICRO CEM** as very suitable for bathrooms, kitchens, water closets, open terraces, swimming pools, etc.

**MICRO CEM** is equally applicable to new or old concrete surfaces, cement screeds and plasters, as well as to existing floorings, made of ceramic and stone tiles, mosaics, and others. The product ensures highly traffic-resistant covering, without joints, interruptions or patches, making it very easy for cleaning and maintenance. The high quality durable pigments in **MICRO CEM** provide a rich color range, selected in a catalogue of over 70 colors. The material's flexibility and the different application technics, provide wide variety of decorative effects – mirror gloss, marble, stone, rustic, industrial, etc., making **MICRO CEM** the perfect alternative to traditional coverings.

#### PROPERTIES

- ❖ water-repellent
- ❖ wear-resistant
- ❖ moisture-resistant
- ❖ no joints and interruption
- ❖ high strength characteristics
- ❖ excellent adhesion

#### PREPARATION OF THE BASE

**MICRO CEM** has an excellent adhesion to all types of building surfaces, such as concrete, cement, gypsum boards, ceramic and stone coverings, mosaics, etc. The base must be dry, strong, and free of grease, dust and cracks.

If there are any old paint coatings, they should be removed. Do not apply on any unstable and compromised surfaces.



#### CHARACTERISTICS AND TECHNICAL DATA

- |                                    |   |
|------------------------------------|---|
| ■ Colour:                          | due to catalogue;                           |
| ■ Base:                            | special cements;                            |
| ■ Tensile bond strength:           | 3.2 N/mm <sup>2</sup> ;                     |
| ■ Wear-resistance (Taber):         | 2880 mg;                                    |
| ■ Coefficient of water absorption: | 0.014 kg/m <sup>2</sup> .h <sup>0.5</sup> ; |
| ■ Work temperature:                | +5°C to +25°C;                              |

#### APPLICATION AND PROCESSING

1. The application of the covering starts with priming of the base surface.

1.1 In case of non-water absorbing surfaces, such as stone, faience or terracotta, the base should be primed with high-strength flexible primer **TOP GRIP**.

1.2 In case of water absorbing surfaces, such as cement screeds or plasters, the base should be prepared with deeply penetrating primer **PRIME DB-55**.

2. After the complete drying of the primer, the first two-component material - **MICRO CEM GROUT 30** should be applied. The pre-mixed product is applied in one layer in combination with alkali resistant fiberglass mesh (145-160 g/m<sup>2</sup>), due to achieve optimal strength results.

3. The pre-mixed second two-component material **MICRO CEM MEDIUM 35** is applied after the complete drying of **MICRO CEM GROUT 30**. The product is applied in one layer, so the mesh from the previous layer to be well covered and the surface to be well smoothed for the next operation.

4. The application of the third basic element of the system - **MICRO CEM FINE 40** should start after the complete drying of the **MICRO CEM MEDIUM 35**. The base should be clean, dry and free of dust, without any additional priming.

The amount of resin should be stirred very well in advance until the mixture is homogenized and a uniform color is obtained. After that the material should be divided in into two equal parts in order to avoid different shades, when applying both layers of **MICRO CEM FINE 40**. Preparing the mixture should start by gradually adding the dry component to the liquid component, in ratio 4 kg : 1.4 kg (dry : resin), and mixing with a mechanical stirrer until a homogeneous mass is achieved. The fresh mixture should stand for about 5 minutes and then must be stirred again before the application begins.

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**MICRO CEM FINE 40** is the finest material of the series. It should be applied with stainless tools in two consecutive layers, with up to 1 mm thickness each. During the application the material should be well smoothed. With changing the pressure and the technics of applying, different decorative effects can be achieved. The prepared mixture should be applied within 1 hour.

5. After the complete drying of the second layer of **MICRO CEM FINE 40**, the two-component **PRIMER HARD TOP** should be applied. The primer is applied in one layer within 1 hour, with component ratio 0.75 kg : 0.25 kg (base : hardener). The main purpose of the product is to seal the **MICRO CEM** system and to create smooth non-water absorbing surface for the final coating to be applied. If necessary, after the primer has completely dried, the surface can be partially smoothed with a fine sandpaper to remove any unwanted residuals and irregularities.

6. The final coating is the highly wear-resistant two-component polyurethane material **HARD TOP PU**, in two variants – gloss and matt. The material should be divided in advance into two equal parts, so that the covering can be applied in two layers, with at least 24 hours pause between them. **HARD TOP PU** components should be mixed in ratio 0.9 kg : 0.3 kg (base : hardener) and applied within 1 hour.

If necessary (on every 2 or 3 years), due to increase the wear-resistant, the coating can be refreshed with one or two layers of **HARD TOP PU**, especially when it is used for floor covering.

### CONSUMPTION

Depends on the working area dimensions and thickness of applying.

### TOOLS FOR WORK

- bucket
- mixer
- mortar-board
- trowel

### COMPONENTS

- PRIME DB-55 or TOP GRIP – primer, according to the type of the base
- MICRO CEM GROUT 30 – first layer of micro-cement
- MICRO CEM MEDIUM 35 – second layer of micro-cement
- MICRO CEM FINE 40 – third layer of micro-cement
- PRIMER HARD TOP – sealing primer
- HARD TOP PU – final polyurethane coating

### WEATHER CONDITIONS AT WORK

The minimum twenty-four-hour temperature of the air and the base should not be less than +5°C, and the maximum – not higher than +35°C.

It should not be applied at low temperatures, when there is rain or in direct sunlight.

### FORM OF DELIVERY

MICRO CEM GROUT 30 – plastic bucket 13 kg

MICRO CEM MEDIUM 35 – plastic bucket 8 kg

MICRO CEM FINE 40 – plastic bucket 13 kg

### NOTES

Characteristics and technical data of the product, pointed out into this Technical Data Sheet are defined at a standard temperature (20°C) and relative humidity (50%). In other weather conditions, the technological time for some of the processes, mentioned above, could be shorter or longer.

The information of the product is based on the practical experience of the manufacturer and the technical tests in specialized laboratories.

Do not mix with other building materials.

All hazards and precautionary statements about **MICRO CEM** system can be checked in the Safety Data Sheets of the products.

### STORAGE

12 months into the originally sealed packages, in a dry and ventilated place, without the danger of freezing and direct sunlight. It is recommended to be stored on pallets.

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*The manufacturer recommends checking the suitability of the product in the Technical Data Sheet. The same is responsible for the product quality, but not for the ways and conditions of its applying.*

*The information into the present Technical Data Sheet is reliable but only if the product is used under stated conditions. The responsibility of any other usage of the product, including its usage in a combination with any other product or a process, is borne by the user.*

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