# Acrydur® 510

Low-viscosity, elasticized synthetic resin
for producing mortar coatings on cement floors

PLASTI CHEMIE International GmbH

**Application:** Acrydur® 510 is suitable for the production of low-binder floor coatings for heavy-duty applications.

**Characteristics:** The flexible mortar coatings based on Acrydur® 510 are suitable for indoor areas subject to heavy-duty transport. They are resistant to aging and wear. To achieve optimal wear resistance, strict adherence to the mixing instructions is essential.

**Characteristic of the resin as delivered:**

| Property | Measurement method | Approximate value |
|---|---|---|
| Viscosity at 23 °C | DIN EN ISO 2555 | 180-220 mPa · s |
| Run-out time at 20°C, 4 mm | DIN EN ISO 2431 | 40-60 sec |
| Density $D^{20}$ | DIN EN ISO 1183-1 | 0.91 g/cm$^3$ |
| Pot life at 20°C | approx. 10 min | |
| Curing | 15-25 min at 20°C | |
| Form of Delivery | Liquid, Violet | |
| Shelf life | in the dark at < 20 °C: max. 6 months | |
| Delivery Container | 180 kg Drum<br>25 kg, 10 kg Pail | |

**Initiator/Hardener:** Hardness powder 50W (BPO), temperature dependent

**Reference Formulation:** (20°C)

**Mortar surfacing 5 – 10 mm:**

This coating enables the installation of floor coverings up to 10 mm thick on pre-primed concrete in a single step. The coverings are highly resistant to mechanical stress and must be sealed (e.g., with Acrydur® 526).



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## Consumption per mm (approx.)

| | | |
|---|---|---|
| 17,0 GT | Acrydur® 510 | 0,4 kg/m² |
| 83,0 GT | Acrydur® Mortar mixture Nr.C2 | 1,8 kg/m² |

Acrydur® 510 and the hardener powder are pre-mixed, after which Acrydur® Filler No. C2 is added. The mixing time in a forced-action mixer is approximately 3 minutes. The mortar is applied using a trowel and a screed bar. For layer thicknesses exceeding 10 mm, up to 20% by weight of a 2.0 to 3.0 mm filler may be added to this mixture. The resulting mortar mixture must be thoroughly compacted during application; entrapped air will lead to curing defects.

## Properties of the resin in the cured state:

| Property | Measurement method | Approximate value |
|---|---|---|
| Compressive strength | DIN EN 197-1 | ~34 N/mm² |
| Flexural strength | DIN EN 197-1 | ~24 N/mm² |
| Young's modulus | DIN EN ISO 527 | ~ 4350 N/mm² |
| Binder content per mm according to reference formulation | - | ~ 0,4 kg/m² |
| Material consumption per mm according to reference formula | - | ~ 2,2 kg/m² |
| Water Absorption, 4 days | DIN EN ISO 53 495 | 0 mg |
| Vicat softening temperature | DIN EN ISO 306 | ~ 48 °C |
| Ball indentation hardness | DIN EN ISO 2039-1 | ~ 41 N/mm² |
| Coefficient of thermal expansion | DIN EN ISO 60216-1 | ~ 40·10⁻⁶K⁻¹ |

Due to the grain size distribution of the quartz sand mortar mixture, only layer thicknesses exceeding 4 mm can be achieved during installation.

## Pot Life and Curing Times Depending on Temperature:

| Temperature [°C] | Hardener [Vol%] | Pot life [min] | Curing time [min] |
|---|---|---|---|
| +5 | 3.0 | approx. 15 | approx. 35 |
| +10 | 2.0 | approx. 10 | approx. 30 |
| +20 | 2.0 | approx. 10 | approx. 25 |



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| | | | |
|---|---|---|---|
| +30 | 1.0 | approx. 10 | approx. 15 |

- Hardener quantity calculated for Acrydur® 510
- Temperature specifications refer to the resin, substrate, and air temperatures.

**Notes:** Coating work must always be continued only after the preceding layer has fully cured.

**Storage:** Regulations governing the handling of highly flammable substances apply to methacrylate resins. Acrydur® resins should be stored in a cool place, protected from direct sunlight, and ideally at temperatures between 15°C and 20°C. During storage, paraffin components and fillers may settle out. Therefore, the contents of the containers must be thoroughly mixed before processing!

**Occupational Safety:** Ensure adequate ventilation during processing. The regulations of the LASI (State Committee for Occupational Safety) must be observed. Please read and follow the instructions provided in our safety data sheets.

**VbF:** A I

**GISCODE:** RMA 10

**HS-Code:** 3208 2010

CE

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|---|---|
| Plasti Chemie International GmbH • Falgardring 1 • 08223 Falkenstein • Germany | |
| EN 13813, SR-B2, 0-AR0, 5-IR12 | |
| Acrydur® 510 | |
| Synthetic Resins for Indoor Use<br>(Application in accordance with the latest technical information ) | |
| Reaction to Fire: | $E_{fl}$ |
| Wear resistance (abrasion resistance): | AR 0.5 |
| Impact resistance: | IR 12 |
| Tensile strength: | B 2.0 |

**CE- labeling**



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