

Plastifloor® 510

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

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

Characteristics: The flexible mortar coatings based on Plastifloor® 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	
	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 Plastifloor® 526).

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Consumption per mm (approx.)

17,0 GT	Plastifloor® 510	0,4 kg/m ²
83,0 GT	Plastifloor® Mortar mixture Nr.C2	1,8 kg/m ²

Plastifloor® 510 and the hardener powder are pre-mixed, after which Plastifloor® 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/mm ²
Flexural strength	DIN EN 197-1	~24 N/mm ²
Young's modulus	DIN EN ISO 527	~ 4350 N/mm ²
Binder content per mm according to reference formulation	-	~ 0,4 kg/m ²
Material consumption per mm according to reference formula	-	~ 2,2 kg/m ²
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/mm ²
Coefficient of thermal expansion	DIN EN ISO 60216-1	~ 40·10 ⁻⁶ K ⁻¹

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

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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
+30	1.0	approx. 10	approx. 15

- Hardener quantity calculated for Plastifloor® 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. Plastifloor® 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!

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PLASTI CHEMIE
International GmbH

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	
Plasti Chemie International GmbH • Falgarding 1 • 08223 Falkenstein • Germany	
EN 13813, SR-B2, 0-AR0, 5-IR12	
Plastifloor® 510	
Synthetic Resins for Indoor Use (Application in accordance with the latest technical information)	
Reaction to Fire:	E _s
Wear resistance (abrasion resistance):	AR 0.5
Impact resistance:	IR 12
Tensile strength:	B 2.0

CE-labeling

Our information regarding our products, equipment, systems, and processes is based on extensive development work and practical application experience. We provide these findings—for which we assume no liability extending beyond the scope of the respective individual contract—both verbally and in writing to the best of our knowledge; however, we reserve the right to make technical modifications in the course of product development. Nevertheless, this does not absolve the user of the responsibility to independently verify the suitability of our products and processes for their own specific application. This also applies with regard to the observance of third-party intellectual property rights, as well as to applications and procedures that have not been expressly authorized by us in writing