Acrydur® 523 Additive

Low-viscosity, slightly bluish-coloured
Methacrylate resin for hard sealing

PLASTI CHEMIE International GmbH

Properties:

Acrydur® 523 additive is a newly developed hard methacrylic resin of low viscosity that is preferably used as a sealer for Acrydur® coatings to improve heavy mechanical and scratch resistance as well as maintenance. The main application areas are troweled industrial floors made of Acrydur® 510 and Acrydur® 418.

Acrydur® 523 advantages:

- Improved self-leveling
- Minimal yellowing
- Excellent chemical resistance
- Increased solvent resistance
- High thermal resistance
- High scratch resistance with Hardener/M
- Low tendency to stain

Characteristic of the resin and additive as delivered:

Acrydur® 522

Property	Measuring method	Approx. value
Viscosity at 23 °C	DIN 53 015	70-120 mPa · s
Flow time at 20°C, 4 mm cup	DIN 53 211	26-32 sec
Density D^{20}	DIN 51 757	0.93 g/cm^3
Pot life at 20°C	ca. 10 min	
Curing	20-30 minutes (20°C and 1% hardener)	
Form of delivery	liquid, slightly bluish	
Shelf-life	dark at < 20°C, 6 months maximum	
Bundle	180 kg drums 25 kg, 10 kg pails	

Acrydur® Additive 523

Property	Measuring method	Approx. value
Flash point	ISO 2719	> 135 °C
Water solubility at 25 °C	OECD Test Guideline 105	15 mg/l
Surface tension at 20 °C	OECD Test Guideline 115	38.6mN/m
Viscosity at 20 °C		1.280 mPa · s
Relative density at 23 °C		1.109
Form of delivery	Liquid, colorless to light yellow	
Shelf-life	6 Months, Storage temperature: < 45 °C	

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Bundle	10 kg, 5 kg cans

Processing:

Stir up all Acrydur® resins well before application! Pour the required amount into a mixing pail and stir in Acrydur® Additive 523 for approx. 1 min by using a suitable agitator. After stirring in the Acrydur® Hardener 50 W (1 min), the sealer is poured out onto the floor and immediately spread out.

Acrydur® 523 is preferably applied crosswise with short hair rollers (mohair) in a layer thickness of up to 0.4 mm max (~ 400 g/m²).

Coating thickness must be at least 0.2 mm (200 g/m²) and should not exceed 0.5 mm (500 g/m²) with 2 coats – depending on the desired coating structure (smooth or coarse).

Scratch and water resistance can be improved by using Hardener/M. Hardener/M result in a matte surface. Please refer to the product data sheet.

Mixing approach:

8 L Acrydur® 522
0.2 L Acrydur® Additiv 523
0.08 L Acrydur® Hardener 50W / 0,16 L Acrydur® Hardener/M

Material consumption:

300 - 400 g/m²

Curing time:

Do not continue coating until the previous coat has completely cured.

Temperatur [°C]	Hardener [Vol%]	Hardener [wt%]	Pot life [min]	Curing time [min]
+ 5 to + 10	2.0	1.3	ca. 35	ca. 50
+ 10 to + 20	1.5	1.0	ca. 30	ca. 40
+ 20 to + 25	1.0	0.6	ca. 25	ca. 35
+ 25 to + 30	1.0	0.6	ca. 20	ca. 30

Hardener quantity calculated on amount of Acrydur® 523 (Hardener 50 W)
The temperature specifications are based on resin, soil and air temperature

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Attention:

At temperatures below - 0°C, the resin must be placed in a warm environment before processing - minimum 5°C and add up to 2% hardener maximum. Generally, accelerators cannot be added to sealers – either as a thinner or as an accelerator – due to yellowing issues.

Hints:

Sealings with Acrydur® 523 should not be applied onto coatings with Acrydur® 332 because the high flexibility of the coating in combination with the very hard sealer Acrydur® 522 can lead to cracks under load. Hardener concentrations of > 2 % can cause discoloration (yellowing). Furthermore, a waiting time of about 2 hours between the curing of the coating and the application of the sealer has proven to be effective.

Despite the good chemical resistance of Acrydur® 523, a reduced resistance must be expected when sealing coatings based on Acrydur® 418 or 510. With these solvents (in case of continuous exposure), swelling by diffusion may occur after some time. This process depends on the thickness of the sealer. In these cases, we recommend a minimum thickness of 0.5 mm or better a double application of Acrydur® 523.

Storage:

Methacrylate resins are subject to handling regulations for highly flammable materials. Acrydur® resins must to be stored cool, at temperatures between 15 – 20° C and protected from direct sun light. Paraffin particles may be deposited during storage. Therefore, materials must be stirred thoroughly before processing the mixture. Please refer to our Safety Data Sheet.

Industrial safety:

Provide adequate ventilation during work. During processing, observe the regulations of the Hazardous Substances Ordinance, the instructions of the Federal State Committee for Occupational Safety and Safety Technology (LASI), and our safety data sheets.

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VbF: A I

GISCODE: RMA 10

HS-Code: 3208 2010

CE-labelling

CE	
EN 13813, SR-B2, 0-AR0, 5-IR12	
Acrydur® 523 Additive	
Synthetic resins for internal uses (Application in accordance with the newest technical information)	
Reaction to fire:	E_{fl}
Wear resistance (Abrasion Resistance):	AR 0.5
Impact resistance:	IR 12
Tensile bond strength:	B 2.0

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