

Primid® SF-4510

Crosslinker for exterior durable powder coatings

Characteristics

- superior flow and higher film thickness
- proven exterior durability in Florida
- enhanced charging properties
- excellent over baking properties
- no hazard labelling required

Description

Primid® SF-4510 is a hydroxyalkylamide crosslinker for the formulation of exterior durable powder coatings. The reactivity profile of Primid® SF-4510 makes this crosslinker exceptionally suitable for high gloss powder coatings as well as for applications where excellent out gassing properties are required.

Product Specifications

Colour Gardner (50% in water)		max. 1.0
Water content (Karl Fischer)	[%]	max. 1.0
Hydroxyl number (EMS method)	[mgKOH/g]	550 - 650

Typical Properties

Appearance		white granular solid
Bulk-Density	[g/cm ³]	approx. 0.7
Melting point (Tottoli)		100 - 115
Shelf life		1 year from the date of delivery

Storage in a dry place at temperatures between 0°C and 40°C

PRIMID®
EMS

Powder coating formulation

Carboxylated polyester resins with an acid value from about 20 to 80 are preferred for curing with Primid® SF-4510. A large number of suitable resins for a wide range of powder coating applications are available from your resin supplier.

Starting formulation, white:

	by weight
Polyester resin, adic value 33	557.5
Primid® SF-4510	32.5
Flow control agent ¹	8.0
Benzoin ²	2.0
Titanium dioxide ³	400.0
Total	1000.0

¹ Resiflow PV 88, Worlée Chemie GmbH or BYK-368 P, BYK-Chemie GmbH

² DSM

³ Kronos 2160, Kronos Titan GmbH

Curing cycles of the starting formulation

20 minutes	165°C
10 minutes	180°C
8 minutes	200°C

Application properties of the starting formulation

Substrates: Q-panel, Type ALQ-36, chromated aluminium 0,8 mm
 Film thickness: approx. 80 µm

Gloss 60°	> 90
Reverse impact, ASTM D 2794, ball diameter ⁵ / ₈ "	full
Buchholz hardness, DIN 53153	> 91
Pencil hardness, Wolff-Wilborn Type 291	H
Cross cut adhesion, DIN 53151, 1 mm	Gt-0
Humidity test DIN 50017-KK	≥ 1500 hrs
Salt Spray test DIN 50021 - SS/ASTM B117	≥ 1500 hrs
Kesternich test DIN 55018 KFW 0.2 S	≥ 30 cycles

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