Technical Data Sheet

Starcoat PMMA HP Sealer

Starcoat PMMA HP Sealer is a high performance topping sealer designed for use as a wearing layer in Axter Starcoat PMMA systems.

It withstands mechanical stresses and chemicals and can be supplied in any colour.

With the application of different topping materials, the required non-slip properties can be achieved.

Material

2-component, fast-curing, pigmented PMMA-based (polymethyl-methacrylate) sealing resin.

Properties and advantages

- Easy and fast application
- Choice of RAL colours
- Any pattern and colour design is possible (e.g. parking bay markings and lettering)
- Toppings (silicon carbide, sand) can be applied to create the desired non-slip properties
- Abrasion resistant
- Permanently weather-resistant (UV-, hydrolysis- and alkali-resistant)

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- Fast-curing
- Solvent-free
- Resistant to chemicals

Chemical Resistance

	Level of resistance	+(	Level of resistance
Acetone	--	Sea water	++ (***)
Formic acid 10%	+ (***)	Sodium, chloride solution	++ (***)
Petrol	- (**)	Caustic soda solution 10%	+ (***)
Diesel	+ (***)	Isopropanol 30%	- (*)
Acetic acid 10%	+ (***)	Olive oil	++ (***)
Ethanol 10%	++ (***)	Orange juice	++ (***)
Ethyl acetate	--	Red wine	++ (***)
Glass cleaner	+ (***)	Hydrochloric acid 10%	+ (***)
Heating oil	++ (***)	Sanitary cleaner	++ (***)
Coffee	++ (***)	Sulphuric acid 10%	++ (***)
Caustic potash solution 10%	+ (***)	Washing up liquid	++ (***)
Lamp oil	++ (***)	Water	++ (***)
Ammonia	+ (***)	Xylene	--

Key: (figures determined under indoor climate conditions.

++	Resistant	(*)	1 hr resistance ++
+	Resistant but with discolouration	(**)	24 hr resistance ++
-	Limited resistance	(***)	28 days resistance++
--	Not resistant		

Areas of application

Starcoat PMMA HP Sealer is used as a topping on all Starcoat PMMA liquid waterproofing systems to increase their chemical and mechanical resistance. The appropriate non-slip properties are achieved by using different toppings as surface treatment.

Packaging

Summer		Winter	
10.00 kg	Starcoat PMMA HP Sealer	10.00 kg	Starcoat PMMA HP Sealer
0.20 kg	Starcoat PMMA Catalyst (2 x 0.1 kg)	0.40 kg	Starcoat PMMA Catalyst (4 x 0.1 kg)
10.20 kg		**10.40kg**	

Colours

Starcoat PMMA HP Sealer is available unpigmented or in the following standard colours:
RAL 7030 Stone Grey; RAL 5024 Pastel Blue; RAL 7032 Pebble Grey.
Other colours available on request.

Storage

Products should be stored sealed in their original airtight container and in a cool, dry, frost-free place. Unopened products have a shelf life of at least 6 months after delivery. Direct sunlight on the containers should be avoided, including on site. After removing some of the contents, reseal the containers to ensure they are airtight.

Application conditions

Temperatures

The product can be applied within the following temperature ranges:

Product	Temperature range in °C		
	Air	Substrate*	Material
Starcoat PMMA HP Sealer	-5 to +35	+3 to + 40*	+3 to +30

*the substrate temperature must be at least 3°C above the dew point during application and curing.

Humidity and Moisture

The relative humidity must be ≤ 90 %. The surface to be coated must be dry and ice-free.
The surface must be protected from moisture until the coating has hardened.

Reaction times and required amounts of catalyst

	Starcoat PMMA HP Sealer (at 20°C, 2% Starcoat PMMA catalyst)
Pot life	approx. 15 minutes
Rain-proof after	approx. 45 minutes
Can be walked on / overcoated after	approx. 60 minutes
Curing time	approx. 3 hours

Higher temperatures or greater proportions of Starcoat PMMA Catalyst will reduce reaction times, while lower temperatures and smaller proportions of Starcoat PMMA Catalyst will increase reaction times.

The following table indicates the recommended amount of Starcoat PMMA Catalyst required to adjust the curing reaction to the temperature.

Product	Substrate temperature in °C Required amounts of Starcoat PMMA Catalyst in % (guide)												
Starcoat PMMA HP Sealer	-10	-5	+3	5	10	15	20	25	30	35	40	45	50
	-	-	4	4	3	2	2	2	1	1	-	-	-

Consumption rates

Substrate

Smooth — 0.50 kg/m²

As finish sealer on areas with surface treatment (depending on particle size of topping) — 0.20 – 0.50 kg/m²

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Density (will vary with the colour) — 1.06 g/cm³

Application

Application equipment/tools

For mixing product: Twin paddle stirrer

For applying the product: Topping sealer with notched rubber squeegee (notch height 3mm)

The finish sealer must be applied with the rubber squeegee and then laid off with the finish roller (minimal shedding).

Substrate preparation

The finish can be applied either to a hardened Starcoat PMMA primer, or the self-levelling mortar, as required.

Mixing

First stir the tub contents thoroughly, then add the Starcoat PMMA catalyst while stirring the resin at the slow-speed setting and mix for 2 minutes. Ensure the product on the base and sides of the container is well mixed in.

At product temperatures <10°C the product should be stirred for 4 minutes as the Starcoat PMMA Catalyst will take longer to dissolve.

Application

Use the finish roller to apply an even layer of the mixed material. Avoid fluctuating layer thicknesses.

Note: If too little product is applied, curing problems may arise due to interrupted polymerisation.

Finish design options:

Increased non-slip properties – top the freshly applied, still liquid finish with dry quartz sand or silicon carbide.

Particle sizes of 0.2 – 0.6 mm and 0.7 – 1.2mm can be used, depending on the desired roughness.

Vacuum off the loose sand once the finish has hardened and then apply a final coat of finish with a lambswool roller to cover the entire area.

Cleaning

If work is interrupted or when it is completed, clean the tools thoroughly with Starcoat PMMA Cleaner within the pot life of the product (approx. 10 minutes). This can be done with a brush. Do not use the tools again until the Starcoat PMMA Cleaner has fully evaporated.

Simply immersing the tools in the Cleaner will not prevent the material from hardening.

Safety and risks

Please refer to the Safety Data Sheets for the products used.

General information

The above product and application information is based on extensive development work and experience and is provided to the best of our knowledge. However, the wide variety of requirements and conditions on site mean that it is necessary for the product to be tested to ensure that it is suitable for the intended purpose. Only the most recent version of the document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products. Axter Ltd makes no warranties, express or implied, as to the properties and performance under any variations from such conditions in actual construction.