<u>Product Description</u> <u>CMR-413.W/CMR-413.WM Antigraffiti Clear Coat</u> (high-gloss/matt)

Version: V-2020-002

Characteristic:

CMR-413.W/CMR-413.WM is a water based clearcoat (2-component), its basic is polyurethane. This clearcoat provides a very high brilliance, abundance and high brightness. A problem-free processing and a high standing power in very good levelling are characteristics of this product. Due to its extremely high density of crosslinking this product provides a very good resistance against graffiti, different kinds of cleanser and chemicals. Therefore the surface is easy to clean. Apart from this the product offers an excellent UV protection.

This clearcoat is used in graphics market and also in the field of automotive, machines and apparatus construction, rail vehicles, cranes, diggers etc. to be coated with a high-quality coating and without solvent emissions.

Due to its simple workability and its huge application possibilities, this clearcoat provides an economic alternative compared to UV curable coating systems. In general the application is made by spraying or by screen printing.



Typical Data:

Basic: Colour: Crosslinker: Potlife: Solubility: Wet film: Dry film: Spreading rate: Solids content: Solids content: Specific gravity/density (20 °C): Specific gravity/density (20 °C): pH value: Neutrality: Viscosity at 20 °C (dyamic): Volatiles/VOC:

aqueous polyurethane dispersion yellowish CMR-613.W (2:1) 2 - 3 hours (20 °C) miscible with deioned water 60 - 80 µ 30 - 40 µ 15 - 20 gm/kg 52 - 55 % CMR-413.W 58 - 62 % CMR-413.WM 1.04 g/cm³ CMR-413.W 1.09 g/cm³ CMR-413.WM not applicable ammonia 5000 mPa.s approx. 10 %

Suitable Substrates:

The product is used as a coating for different kinds of substrates (metals, plastics, mineral surfaces) for outdoor applications.

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Properties:

Transparent High-gloss or matt

Scratch resistance, mechanical properties, hard and abrasion resistant

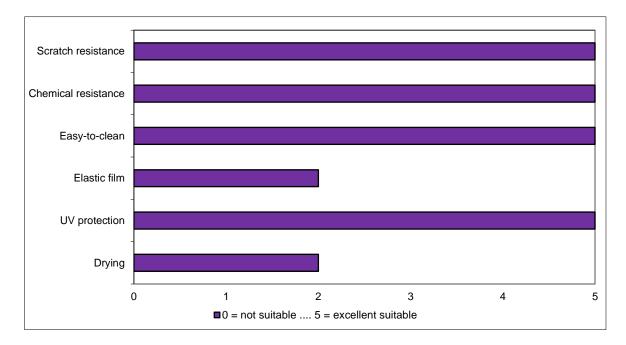
High creme and chemical resistance

Excellent antigraffiti properties

Heat resistant until 80 °C

Easy-to-clean, polishable

Excellent UV protection



Spreading Rate:

Solids	Thickness	Thickness	Coated	kg for
content	wet	dry	surface	surface
	g/m²	g/m ²	m²/kg	of 80 sqm
55%	60	33	17	4,8

Recommendation for end-use:

- Storage:

The product may be stored at least 6 months if kept in tightly closed container and below 25 °C. Protect against cold.

Don't store and apply the product below +5 °C.

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- Application:

The product can be apply by usual methods: spraying, rolling and printing. For spraying or automatic application further adjustment of viscosity can be necessary. A dilution of max. 20 % water is possible.

Spray gun:	Viscosity:	18 - 22 s
	Dilution:	water
	Nozzle:	1.2 - 1.6 mm
	Pressure:	3 - 4 bar
	Spraying:	1 - 2

- Drying-Conditions:

The crosslinking process is reached by adding of the hardener. It can be dryed by room temprature and forced drying.

> Drying time (for 40 μ dry film): Dry at room temperature (20-25 °C) after 2-3 hours. After 5 hours the layer is dry-to-touch. Forced drying (60-80 °C) after 45 min., dry-to-touch after 1 hour. After around one week the cross-linking process is finished and the ready surface has reached its definite chemical resistance and physical properties.

In all cases of CMR coating-systems, the stamp of the single characteristics depends very strongly on the respectively related underground (substrate and/or inks). For this reason we recommend to make trials in every special case.