

# Product Description

## CMR-438 2C-Clear Coat for Tarpaulin - "hand use"

### (matt)



Version: V-2020-001



### Characteristic:

**CMR-438** is a water based clear coat (2-component), its basic is polyurethane. It is to be cross-linked by CMR-638. It is used as matt and high-flexible liquid laminate on digital printed PVC tarpaulins, and non-printed flexible surfaces too.

Medias printed with pigmented solvent inks, Latex and UV inks are protected against attrition and scratches.

Coated surfaces achieve outstanding colour brilliance and easy-to-clean properties. Because of its water and weather resistance, this protection film is used especially for outdoor applications.

In general the application is made manually by roller.

### Only for hand-use!



### Typical Data:

Basic:	aqueous polyurethane dispersion
Colour:	milky white liquid
Crosslinker:	<b>CMR-638 (10:1)</b>
Potlife:	6 - 8 hours (20 °C)
Solubility:	miscible with deionized water
Wet film:	70 - 80 $\mu$
Dry film:	20 - 30 $\mu$
Spreading rate:	10 - 15 sqm per kg
Solids content:	30 - 35 %
Specific gravity/density (20 °C):	1.05 g/cm <sup>3</sup>
pH value:	7.0 - 8.0
Neutrality:	ammonia
Viscosity at 20 °C (4 mm DIN flow cup):	12 - 18 s
Minimum film forming temperature (MFT):	0 °C

### Suitable Substrates:

Plastic films: PVC, tarpaulins

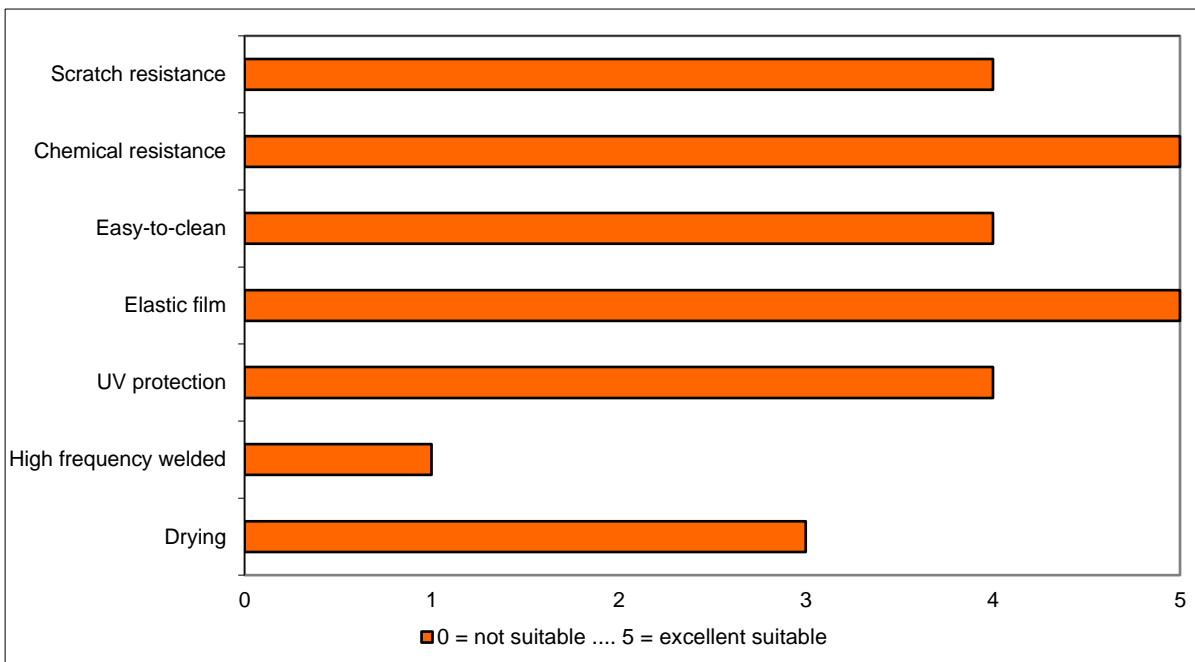
With corona pre-treatment the system is suitable as a coating for all kinds of plastics.

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**Properties:**

- Transparent, high-gloss or matt
- High flexibility
- Scratch resistance, mechanical properties, hard and abrasion resistant
- High chemical resistance
- Easy-to-clean, polishable
- UV protection
- Elastic film (over 200 %)
- Blocking temperature 145 °C, cold stable until -20 °C
- Plasticizer blocking feature
- High frequency welded
- The high-gloss version is suitable for thermoforming and embossing (short time thermostable up to 180 °C)
- Without pre-treatment the system is suitable for all PVC and vinyl plastics.
- With corona pre-treatment the system is suitable as a coating for all kinds of plastics.



**Spreading Rate:**

Solids content	Thickness wet g/m <sup>2</sup>	Thickness dry g/m <sup>2</sup>	Coated surface m <sup>2</sup> /kg	kg for surface of 80 sqm
36%	75	27	13	6

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**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.

**- Application:**

The product can be apply by usual methods: spraying, rolling and printing.

The viscosity of the lacquer was adjust for manual application by roll (e. g. Velours).

For spraying or automatic application further adjustment of viscosity can be necessary.

A dilution of max. 5% water is possible.

<b><u>Spray gun:</u></b>	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 dried by room temprature and forced drying.

<b><u>Drying time (for 25 µ dry film):</u></b> Dry at room temperature (20 - 25 °C) after 2 - 3 h. After 16 - 20 hours the layer is dry-to-touch and can be rolled up. Forced drying (60 - 80 °C) after 30 - 60 s.  After around one week the cross-linking process is finished and the ready surface has reached its definite chemical resistance and physical properties.
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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.