

12-680 C-CRYL® W680 MATT

Water based acrylic coating for concrete protection

Revision: December 2016

PRODUCT DESCRIPTION	C-CRYL W680 MATT is a water based acrylic anti-carbonatation coating for concrete protection and its main properties are: <ul style="list-style-type: none"> - CE marking product according the standard EN 1504-2 - Excellent properties for anti carbonation concrete protection - High impermeability to carbon dioxide and to liquid water - High permeability to water vapour - Good weather resistance - Low VOC - Fireproof - Available on Colormix 3G system
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INTENDED USES	This acrylic coating is recommended for the protection of structural elements and walls in concrete and cementitious mortars, such as bridges and viaducts. Its use can be extended to schools, hospitals, laboratories, warehouses, car parks and other areas where the use of solvent-based coatings is not recommended for health reasons, safety and/or environmental.
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This coating meets the mandatory requirements of the EN 1504-2, in respect of protection against the ingress of aggressive agents into the concrete, humidity control and increased resistivity. Due to its low permeability to liquid water and carbon dioxide, it presents itself as an excellent solution against carbonation of the concrete, providing support protection against harsh environmental conditions that it may penetrate as gases or dissolved salts. From another perspective, the fact that this coating has a high permeability to water vapour ensures the good required breathability of the concrete, in order to eliminate water that may exist within the structure resulting from the manufacturing process, as steam.

It can be used as a topcoat for water and solvent based intumescent coatings for Z2 environments.

PROPERTIES	Finish	Matt
	Colour	RAL colours
	Components	1
	Volume solids	45 % (ISO 3233) Slight variations (±3%) may occur due to testing variances
	Specific weight	1,402 ± 0,04 g/mL
	Dry film thickness	50 - 100 µm per coat
	Number of coats	2 – 3
	Application method	Airless or airmix spray, brush or roller

We recommend that the technical data sheet is periodically checked to ensure that it is the most recent version. CIN guarantees that its products conform to the specifications as detailed in the respective technical data sheets. CIN cannot under any circumstances be held responsible for the consequences of technical information given prior to or after purchase of products. This is merely of an advisory nature, given in good faith and to the best of its knowledge, and based on current technical know-how. Claims can only be accepted for products which have manufacturing defects or which do not conform to the purchase order. CIN will, at its discretion, either replace the defective goods or reimburse the customer. CIN cannot accept responsibility for any other loss or damage. All sales are subject to our general terms and conditions of sales that we advise should be read carefully.

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Theoretical coverage	6,0 m ² /L at 75 µm (dry film thickness) Allow for application losses, surface irregularities, etc.
Drying times	75 µm of dry film thickness, 23 °C and 50% HR: Dry to touch: 30 - 60 minutes Total dry: 3 - 4 hours Recoat: Minimum: 16 hours Drying times are dependent on temperature, ventilation and film thickness.

SURFACE PREPARATION

The surface must be dry, clean and free of dust and grease. It is very common for mould removers or other additives such as concrete hardeners to be used. Whenever this occurs it is essential to remove these compounds before painting to ensure that the adhesion of the coating is not adversely affected. In these situations, depending on the nature of the compounds involved, grit blasting, high pressure jet washing or treating the surface with an acid solution is recommended. In the latter case this should always be followed by thorough washing with neutral water and drying.

APPLICATION

In confined areas ventilate with clean air during application and drying until solvents are removed.

Environmental applications

Temperature	5 to 40 °C
Relative humidity	10 to 80 %
Substrate humidity	less than 5 % in depth (with meter type "Tramex")
Surface temperature	3°C above dew point. Don't apply this paint over hot surfaces exposed to sun.

Application Equipment:
Airmix spray

Fluid tip orifice size	0,015 – 0,019 inches (0,38 – 0,48 mm)
Air pressure	3,0 - 4,0 bar
Work pressure	3,0 - 4,0 bar
Filter	250 µm
Thinning	10 %

Airless spray

Fluid tip orifice size	0,015 – 0,019 inches (0,38 – 0,48 mm)
Work pressure	160 – 180 kg/cm ²
Thinning	0 - 5%

Brush / Roller

Recommended

Thinning 0 - 5%

Thinner and Cleaner

Water

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PAINT SYSTEMS**On concrete or cement surfaces**

This coating can be applied directly to the substrate as a topcoat. Apply two or three coats, according to the absorption of the substrate. The primer should be diluted to 5% to work as sealant of the support. In case of high alkalinity suspicion, apply a previous coat of C-CRYL W680 MATT in a white colour (eg. RAL-9010).

Topcoat for other schemes

It can be used as topcoat over water and solvent based intumescent coatings for fire protection systems of wood and steel structures.

ADDITIONAL INFORMATION

Curing mechanism – Water evaporation

Volatile Organic Compounds (COV)

EU limit for this product (cat. A/j): 140 g/L

This product contains max. 4,4 g/L VOC *

Supply form: less than 4,4 g/L

* The VOC value shown above refers to a ready for use product, as tinted, thinned, etc in accordance with our recommendations. We are not responsible for products obtained by mixing products with are different from those we have recommended and we must draw attention to the responsibility of anyone involved within the supply chain not to infringe Directive 2004/12/CE.

Flash Point (EN 456)

Product higher than 100 °C

Thinner non flammable

Cleaner non flammable

Packaging

Product 4 and 20 L

Storage

2 years when stored indoors in original containers at 5 to 40°C

HOMOLOGATIONS AND CERTIFICATES

C-Cryl W680 is certified as a fire retardant coating, Bs1d0 fire protection classification according EN 13501-1:2007. Meets the obligatory requirements of EN 1504-2, about protection against ingress of aggressive agents in concrete and has a good behaviour after accelerated ageing test for 2000 h according the standard EN ISO 16474-2 "Paints and varnishes -- Methods of exposure to laboratory light sources -- Part 2: Xenon-arc lamps".

NOTES

It is recommended to carry out a previous test to check the adherence to the mortar. This should have the properties of tensile and compression strength recommended, otherwise it could reduce the durability of the system.

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CE MARKING

CE Marking of this product is the evidence given by CIN that this product is subject to the provisions of Community Directives of the Construction Products that are applicable with European Regulation nº305/2011 on March, 9 of 2011 and the European Standard EN 1504-2. “*Products and Systems for the protection and repair of concrete structures. Definitions, requirements, quality control and conformity assessment. Part 2: Surface protection systems for concrete*”. This product complies with the requirements of Annex ZA of this standard, according to the principles 1 (protection against the ingress), 2 (humidity control) and 8 (increased resistivity), in line with system of conformity 3.

	
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EN 1504-2 Declaration of performance: CE-12680	
Surface protection products Protection against ingress, humidity control and increasing resistivity	
Permeability of CO ₂	S _D > 300 m
Water vapour permeability	S _D < 5 m (Class I – water vapour permeability)
Water permeability	w < 0,01 kg / (m ² · h ^{0,5})
Bond Strength	> 2 N/mm ²
Fire reaction	B-s1,d0
Dangerous substances	Complies with clause 5.3

HEALTH, SAFETY AND THE ENVIRONMENT

Protect the eyes and skin from contact. Gloves, goggles and appropriate clothing should be worn. Keep out of the reach of children. Use only in well ventilated areas. Do not empty into drains. Keep the container properly sealed and stored in the correct place. Take correct measures when transporting the product so as to avoid any accidents that could rupture the can or cause damage to the packaging. Ensure that the container is correctly stacked in a safe area. Do not store or use the product in extreme temperature conditions. Always take account of the appropriate legislation relating to the environmental and Health and Safety at Work. For more information it is essential to read the label on the container and the product Material Safety Data Sheet of this product, its components and all complementary products referred on Technical Data Sheet.

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