

PRODUCT DESCRIPTION

C-Cryl S410 HB is a high build acrylic paint. Its main properties are:

- CE Marking product according the standard EN 1504-2
- Complies LNEC E468 specification
- Excellent anti-carbonation properties of concrete
- High impermeability to chlorides and carbon dioxide
- Fireproof
- Allows application of high film thickness per coat
- Good resistance in marine and chemically aggressive industrial environments
- Available in the "Industrial Colour System" (ICS)

INTENDED USES

Recommended for application to concrete, rendered cement and steel in aggressive maritime and industrial environments on structures such as bridges, tanks, metal and concrete industrial structures and as topcoat for intumescent coatings, etc. Provides an excellent alternative to conventional finishes for painting steel and cement renders and especially for concrete for which its properties are most relevant. Its low water, sodium chloride and carbon dioxide permeability makes C-Cryl S410 HB an excellent integral protection for concrete with protection from the aggressive components in the atmosphere which cannot penetrate either in the form of gases or dissolved salts. On the other hand, its good water vapour permeability guarantees that the concrete can breathe, allowing water within concrete to evaporate.

PROPERTIES

Finish	Semi gloss
Colour	RAL colours; other colours: on request
Components	1
Volume solids	48 % (ISO 3233) For colour RAL 9010. For white colour. Slight variations (± 3%) may occur due to colour and testing variances
Specific weight	1,198 ± 0,03 g/mL
Dry film thickness	60 - 120 µm per coat
Number of coats	1 – 3 The number of coats depends on application method and substrate to protect.
Theoretical coverage	8 m ² /L at 60 µm; 4 m ² /L at 120 µm Allow for application losses, surface irregularities, etc.
Application method	Airmix, airless, brush or short pile roller. It is recommended brush or roller applications on small areas, due to fast drying of this product makes difficult its application.

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Drying times

at 23 °C and 80 µm:

Dry to touch:	1 hour
Total dry:	8 hours
Recoat:	Minimum: 16 h
	Maximum: unlimited

Drying times are dependent on temperature, ventilation and film thickness

PAINT SYSTEMS

Steel ^{a)} - In steel surfaces, C-CRYL S410 HB is usually applied over epoxy-zinc, zinc phosphate and zinc ethyl silicate primers, such as C-Pox Primer ZN500 and ZN650, C-Pox Primer ZN800, C-Pox Primer ZP200 HB, Cincoat Primer IZS920.

Concrete and cement render - Over concrete and cement render this product can be applied directly over to the substrate either as an intermediate coat or as soon as topcoat. If high alkalinity is suspected in the substrate (for example where new concrete has had insufficient curing time) a coat of C-CRYL S410 HB in white colour (eg. 0501) must be applied first, this being the only way to guarantee complete colour stability of the topcoat. For effective protection of the structures of concrete, it is recommended the application of C-CRYL S410 HB with a minimum dry film thickness between 150 and 200 µm.

SURFACE PREPARATION

Steel – The previous coat must be free from any contaminants; when applied directly to the surface it must be grit blasted to Sa 2½ (ISO-8501-1).

Concrete and cement render – Must be dry, clean and free of dust and grease. It is very common to use mould release agents or various additives such as concrete hardeners. In these cases it is essential that these are removed before painting as otherwise surface adhesion of the paint will be impaired. Accordingly we recommend grit blasting, pressure washing or surface treatment with acid followed by copious washing with clean water and drying, depending upon the nature of the agents in question.

APPROVALS AND CERTIFICATES

Complies the requirements of European Norm EN 1504-2 that refers to “protection against penetration of aggressive agents into concrete on weathering conditions”.

C-Cryl S410 HB is certified as a fireproof coating, with B-s1,d0 fire reaction classification according EN 13501-1.

Certified as F1 (Emission de Fumes and Toxicity) according to Norms NFX 10-702, NFX 70-100 and NF F16-101.

Complies the client requirements for concrete protection:
 Certificate by LNEC – Laboratório Nacional de Engenharia Civil.
 Complies with a LNEC E468 specification.

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	less than 80 %
Substrate humidity	less than 4 % according ASTM F2659("Tramex" device)
Minimum surface temperature	3 °C above dew point

The product should not be applied where there are very strong winds and areas of high ventilation, especially when combined with high temperatures, there can be a quick drying surface of the product and consequent retention of solvents, causing surface defects.

Application Equipment:

Airmix spray	Recommended
Fluid tip orifice size	0,013 - 0,021 inches (0,33 – 0,53 mm)
Air pressure	3,5 – 4,0 kg/cm ²
Work pressure	160 – 180 kg/cm ²
Thinning	5 %

Airless spray	Recommended
Fluid tip orifice size	0,013 – 0,021 inches (0,33 – 0,53 mm)
Work pressure	160 – 180 kg/cm ²
Thinning	0 – 5 %

Brush / Roller	Recommended
Thinning	0 – 5 %

Thinner:	7Q-240.0000 (Dil. CP-20)
Thinner for brush and roller:	7Q-250.0000 (Dil. RT)
Cleaner thinner:	52-510.0000 (Dil. Industrial Cel)

ADDITIONAL INFORMATION

Curing mechanism – By solvent release.

Volatile Organic Compound (VOC)

EU limit for this product (cat. A/i):	500 g/L
Maximum VOC content:	less than 499 g/L *
Supplying form:	less than 481 g/L
Thinner:	less than 872 g/L
Thinner for brush and roller:	less than 893 g/L
Cleaner thinner:	less than 864 g/L

* The VOC value shown above refers to a ready to 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 426)

Product:	26 °C
Thinner:	31 °C
Thinner for brush and roller:	60 °C
Cleaner thinner:	less than 0 °C

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Packaging

Product 4 and 20 L

Storage

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

NOTES

a) The application on exterior steel should not be made on lightweight structures, such as, for example, steel sheets with a thickness of less than 3 mm.

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 n°305/2011 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-54410	
Surface protection products Protection against ingress Humidity control Increasing resistivity	
Permeability of CO ₂	S _D > 450 m
Water vapour permeability	S _D < 5 m (Class I)
Water permeability	w < 0,01 kg / (m ² · h ^{0,5})
Bond Strength	> 2,0 N/mm ²
Permeability chloride ions	< 10 ⁻¹⁵ m ² /s
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 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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