

# DRACOLOR

DECORATIVE, PROTECTIVE AND BREATHABLE SOLVENT CONTAINING COATING BASED ON METHACRYLIC RESINS FOR CONCRETE SURFACES



**DRACOLOR** is a one-component solvent containing paint based on methacrylic resins and selected pigments with superior coverage rates. **DRACOLOR** is specially formulated to protect against carbonation, whilst at the same time decorating concrete surfaces. **DRACOLOR** is used on concrete surfaces of bridges, viaducts and flyovers, amongst others, to provide a coating that resists to water ingress and aggressive atmospheric agents, whilst maintaining excellent water vapour breathability properties.

## BENEFITS

**DRACOLOR** is a methacrylic resin-based coating that protects concrete structures. Product characteristics include:

- ✓ **RESISTANCE AND IMPERMEABILITY:** **DRACOLOR** forms a coating that is impermeable to water, with low gas permeability, it is tough and resistant and at the same time provides good water breathability.
- ✓ **ANTI-CARBONATION:** **DRACOLOR** guarantees high resistance against penetration of external aggressive agents. Concrete structures are thus protected against the phenomenon of carbonation. In this way, maintenance of alkalinity is guaranteed, which in turn ensures the necessary passive barrier to prevent the phenomenon of reinforcement bar corrosion.
- ✓ **EXCELLENT RESISTANCE TO AGEING:** **DRACOLOR** has excellent resistance to yellowing and chalking.
- ✓ **EXCELLENT RESISTANCE TO ATMOSPHERIC AGENTS:** **DRACOLOR** is resistant to sunlight, alkalis, aggressive atmospheric agents and freeze-thaw cycles.



## USES

**DRACOLOR** is recommended for the following applications:

- as anti-carbonation protection and decoration of concrete structures, particularly external surfaces of bridges, viaducts, flyovers, reservoirs, etc.
- as a protective coating for exposed surfaces of flyovers, bridges, overpasses, reservoirs, etc.
- wherever resistance to chemical agents and freeze-thaw cycles is required
- for protecting and decorating façade plasterwork where an attractive colour and aesthetic effect is required
- as a finishing coat to ensure uniform colour and offer additional protection to surfaces restored using FLUECO or CONCRETE FINISHER mortars.



© Copyright 2012 - All rights reserved. The information in this data sheet is based on our knowledge of the product at the time of publication. Changes may occur depending on the accuracy of every step of the application procedure over which we have no control. For this reason, our warranty only covers the quality and consistent compliance of the products with the specifications provided. This data sheet invalidates and supersedes the previous ones.

## SUBSTRATE PREPARATION

### CLEANING

The surfaces to be coated must be clean with any efflorescence salts and loose particles removed. Any holes, cracks or splits must be previously sealed (using EP.FIX, EPOMALT, EPOX INIEZIONE RM - RM2 - RM3). The substrate must be dry, free from traces of dust, curing compound, laitance, friable or detaching parts.

DRACOLOR PRIMER CHARACTERISTICS AND APPLICATION DETAILS (20°C - 50% R.H.)	
APPEARANCE	fluid paste
DENSITY - UNI EN ISO 2811	approx. 0.9 kg/l
VISCOSITY - EN ISO 3219	700 mPa-sec
DRY MATTER AT +125°C - EN 480-4	20.0%
PACKAGING	20 kg
CONSUMPTION	100÷150 g/m <sup>2</sup> per coat (approx. 50 µm of dry thickness)
APPLICATION TEMPERATURE	da +5°C a +35°C
OVERCOAT	touch dry - unlimited
COMPLETE HARDENING	7 days

### PRIMER APPLICATION

The substrate shall be saturated with the primer based on methacrylic resins DRACOLOR PRIMER at a rate of 100-150 g/m per coat or the epoxy-based primer PRIMER ES 40 (if specifically requested). DRACOLOR PRIMER and PRIMER ES 40 shall be applied by roller. DRACOLOR PRIMER shall be thoroughly mixed in its container before application to the substrate and does not require dilution. To clean the tools/ equipment, use the solvent for epoxy resins DILUENTE EC.

## PREPARATION OF THE MIX

Dilute **DRACOLOR** with 5-10% of DILUENTE EC, stirring it thoroughly using a mixing spindle attached to a slow speed drill until a homogeneous mix is achieved.

## APPLICATION INSTRUCTIONS

### APPLICATION

Apply **DRACOLOR** by brush, roller or airless spray, depending on the environmental conditions and the surface to be coated. The number of coats that need to be applied will depend on the condition of the substrate, the application system used and the type of treatment desired. For complete coverage, 2 or 3 coats normally suffice. Allow 3 to 24 hours drying time in between coats, depending on the environmental conditions. Allow to dry completely before applying another coat. To guarantee a better penetration, apply the first coat using a brush or roller.

## PRECAUTIONS

- ▶ Use rubber gloves, protective goggles and a safety mask with active carbon filter to protect the airways (the product contains solvent) both during work and when cleaning any tools.
- ▶ It is good practice to ventilate the room well.
- ▶ Avoid contact of the mixed product with skin, eyes, etc.
- ▶ In the event of accidental contact, wash with plenty of water and neutral soap.

## PACKAGING AND STORAGE

**DRACOLOR** is packed in 20kg pails.

If stored properly in original unopened packaging in dry conditions, the product maintains its characteristics for 12 months.



## PRODUCT CHARACTERISTICS

APPEARANCE	fluid paste
DENSITY - UNI EN ISO 2811	coloured: approx. 1.2 kg/l clear: approx. 0.9 kg/l
VISCOSITY - EN ISO 3219	700 mPa-sec
DRY MATTER AT +125°C - EN 480-4	coloured: approx. 60.0% clear: approx. 20.0%
PACKAGING	20 kg pail

## APPLICATION SPECIFICATIONS 20°C - 65% R.H.

AVAILABLE COLOURS	Clear - Grey similar to RAL 7032 - Grey similar to RAL 7035 Grey similar to RAL 7038 - Red similar to RAL 3001 Other colours can be supplied upon request
CONSISTENCY	fluid
APPLICATION TEMPERATURE	+5°C to +40°C
WORKABILITY at +20°C	max. 60 minutes
DRYING TIME	approx. 30 minutes
TIME BEFORE RECOATING	3 to 24 hours
COMPLETE HARDENING	7 days at +20°C
CONSUMPTION	1.6 kg/m <sup>2</sup> approx. per mm of thickness 250 ÷ 350 g/m <sup>2</sup> (per coat) 500 g/m <sup>2</sup> (minimum recommended)

## PERFORMANCE CHARACTERISTICS DRACOLOR, COLOURED, +20°C - 50% R.H.

Complies with the minimum requirements of standard EN 1504-2 COATING (C) - Principles PI (method 1.3) - MC (method 2.2)

PERFORMANCE CHARACTERISTIC	TEST METHOD	MINIMUM REQUIREMENTS	PRODUCT PERFORMANCE (AVERAGE VALUES)
<b>ADHESIVE BOND</b> - reference concrete substrate (MC 0.40 - w/c ratio 0.40) to UNI EN 1766 (primed with PRIMER ES 40)	UNI EN 1542	≥ 2 MPa	> 4.6 MPa
<b>PERMEABILITY TO WATER VAPOUR</b> - Diffusion equivalent air layer thickness $S_D$ - Water-vapour transmission rate V	UNI EN ISO 7783-2015 Method B	Class from I to III	Thickness 100 $\mu$ m Class I - $S_D \leq 0,5$ m $\mu \leq 5000$
<b>CARBON DIOXIDE PERMEABILITY</b> - Diffusion equivalent air layer thickness - Carbon dioxide diffusion coefficient	UNI EN 1062-6 Method A	$S_D > 50$ m	$\mu > 1.210.000$ Thickness 100 $\mu$ m $S_D > 120$ m Thickness 200 $\mu$ m $S_D \geq 240$ m
<b>CRACK BRIDGING, STATIC</b> - Crack bridging ability	UNI EN 1062-7 Method A	Classes from A1 (0.1 mm) to A5 (2.5 mm)	Thickness 0.15 mm < A1 (< 86 $\mu$ m a 23°C)
<b>THERMAL COMPATIBILITY</b> - Freeze-thaw cycling with de-icing salt immersion	UNI EN 13687-1	No cracks, delaminations or blisters detected Measurement of bond strength by pull-off test: flexible systems without traffic ≥ 0.8 MPa	4.7 MPa
<b>WATER PERMEABILITY</b> - Capillary water absorption coefficient	UNI EN 1062-3	$w < 0.1$ kg/(m <sup>2</sup> · h <sup>0.5</sup> )	$w \leq 0.01$ kg/(m <sup>2</sup> · h <sup>0.5</sup> )
<b>EXPOSURE TO ARTIFICIAL WEATHERING</b> after 2000 hours - UV radiation and humidity at 50°C to 60°C	UNI EN 1062-11	No cracks, delaminations or blisters detected	Meets specifications
<b>REACTION TO FIRE</b>	UNI EN 13501-1	Euroclass	Class E
<b>ABRASION RESISTANCE</b> Loss in mass < 500 mg	UNI EN ISO 5470-1	nn	263 mg

### Legal notes - SLCMP version of 01.03.2017

Draco Italiana s.p.a. has adopted the parameters indicated in this data sheet and the related standards for the calculation of the values and technical data contained herein. Customers shall verify that this data sheet and the values indicated herein apply to their product batch and have not been superseded by later editions. If in doubt, verify that the sheet corresponds to the one available on the website [www.draco-edilizia.it](http://www.draco-edilizia.it) at the time the sales contract was executed and/or by previously contacting the Technical Department. Any suggestions on the use of the Products provided by our personnel either orally or in writing upon the Customer's request do not constitute additional obligations to the purchase contract and do not imply a contractual obligation for the company. They are based on our experience and limited to the current state of practical and/or scientific knowledge. They are not binding for the client or for the installer. It is the Customer's responsibility to test our products and verify they are suitable for the type of application and use envisaged.