



**NITTA (C)**

**One component,  
Transparent  
Glossy  
Aliphatic  
polyurethane  
liquid  
membrane.**

#### DESCRIPTION

**MAC CRYSTAL DYE** is a one-component polyurethane fluid that cures with the humidity in the atmosphere to produce a transparent membrane with uniform adhesion over the entire surface. It is aliphatic: No yellowing as a result of direct exposure to sunlight.

It is based on pure elastomeric hydrophobic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties. Apply with brush, roller or airless spraying in one or two coats. Minimum consumption per coat: 0.1 kg/m<sup>2</sup>.

# product data sheet

VERSION 1.0

## MAC CRYSTAL DYE

### RECOMMENDED FOR

Waterproofing and protection of:

- ☐ Industrial floors,
- ☐ Building materials like stone, marble, bricks and wood,
- ☐ Metals like Iron, Steel and Aluminium
- ☐ Door and Window casings
- ☐ Wooden Floors
- ☐ Furniture

**LIMITATIONS:** Not recommended for:

- ☐ Unsound substrates,
- ☐ Application in thick coats

### FEATURES & BENEFITS

- ☐ Quick curing,
- ☐ Strong and uniform adhesion over the entire surface
- ☐ Excellent heat and ultraviolet/UV resistance, it will not yellow, peel or soften up to 80 °C,
- ☐ Outstanding resistance to chemicals and mechanical stresses (high tensile strength and resistance to friction).

### APPLICATION PROCEDURE

Clean the surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed.

Glassy surfaces must either be graded or primed with PRIMER.

Further primer information available on request.

The application surface must be dry.

When used as a topcoat, for colour protection, it must be pigmented with pigment pastes (10% max).

When used as a topcoat to a flooring product, e.g. epoxy/polyurethane paint or self-levelling systems, it should be applied pigmented, again, (with pigment pastes 10% max) within 24 hours of application of the main coat.

#### Preparation:

When stirring (or pigmenting) take care not to introduce air in the mix, which may result in bubbling on the cured membrane. Stirring can either be done manually or with a low speed (300 rpm) mixer.

#### Application:

Apply with brush, roller or airless spraying in one or two coats. Do not leave more than 48 hours between coats.



## APPLICATION PROCEDURE



If applied non-pigmented, you are advised to consider whether there are any UV resistance requirements for the substrate or surface on which it is applied. For more information, please contact our support department.

<b>CONSUMPTION</b>  Minimum consumption per coat: <b>0.1 kg/m<sup>2</sup></b>	<b>CLEANING</b>  Clean tools and equipment first with paper and then using SOLVENT. Rollers will not be re- usable.
<b>PACKAGING</b> <ul style="list-style-type: none"><li>• 1 lt</li><li>• 4 lt</li><li>• 20 lt.</li></ul>	<b>SAFETY INFORMATION</b>  Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25o C. Once opened, use as soon as possible. Contains a small quantity of volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.



## TECHNICAL SPECIFICATIONS

**In liquid form (before application):**

50% dry matter in Xylol.



PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 oC	100
Specific weight	gr/cm <sup>3</sup>	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 oC	0.95
Tack free time, @ 77 oF (25 oC) & 55% RH	hours	-	4-6
Recoat time	hours	-	6-24

**The cured membrane:**

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	oC	-	-40 to 80
Max. temperature short time (shock)	oC	-	200
Hardness	Shore D	ASTM D2240 / DIN 53505 / ISO R868	> 60
Tensile strength at break @ 23 °C	Kg/cm <sup>2</sup> (N/mm <sup>2</sup> )	ASTM D412 / EN-ISO-527-3	550 (55)
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 50
Water vapor transmission	gr/m <sup>2</sup> .hr	ASTM E96 (Water Method)	0.8

QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2000 hours)
Hydrolysis (Potassium Hydroxide 8%, 10 days @ 60 °C)	-	-	no significant elastomeric property change
Hydrolysis (Sodium Hypochlorite 5%, 10 days)	-	-	no significant elastomeric property change
Water absorption	-	-	< 1%

NIMACO

Certified quality, environmental and occupational health & safety management systems:  
ISO 9001/14001 & OHSAS 18001. MAC CRYSTAL DYE/EE/1-1-18

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