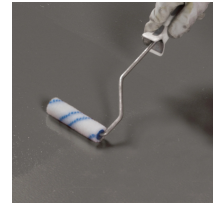


# MONOLINE

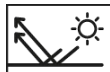
Colored single-component water-based enamel for concrete floors and road markings, driveway

|  |           |
|--|-----------|
| <b>CON<br/>FOR<br/>MITY</b>                        | HACCP     |
|  | UNI 11021 |
| COATING FOR ENVIRONMENTS WITH THE PRESENCE OF FOOD |           |

**Certifications:**  
- UNI11021 • HACCP



## TECHNICAL FEATURES



UV RESISTANT



FROST



STAIN RESISTANT



FAST CURING

## FIELD OF APPLICATION



IN/OUTDOOR



FLOORS

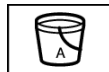


SIDEWALKS



GARAGE

## APPLICATIONS



1 PART



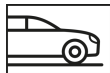
READY TO USE



ROLLER



BRUSH



CARRIAGEABLE

## Description

MONOLINE is a colored enamel based on non-yellowing thermoplastic resins, to be applied in two coats. Applied to concrete surfaces, MONOLINE gives rise to a colored aestheticizing protective coating with the following characteristics:

- Opaque.
- High hardness.
- Tenaciously bonded to the substrate.
- Water-repellent and resistant to oils and tyres.
- Applicable indoors and outdoors.
- Rapidly develops resistance to rain (6-8 hours with application at +30°C).

MONOLINE serves as a colored dust cover.

In addition to this, MONOLINE protects the concrete surface from degradation factors such as:

- Carbonation, preventing the diffusion of carbon dioxide into the solid matrix.
- Sealing action of rain.
- Corrosion, limiting the penetration of disruptive substances (chlorides and sulfates).
- Staining and adhesion of dirt (grease, oil, and tires).
- Wear and abrasion.

## CE Marking

**MONOLINE responds to the principles defined by EN 1504-9 ("Products and systems for protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for use and systems") and the requirements of EN 1504-2 ("Concrete surface protection systems") for the class:**

→ *MC-IR*

- For Principle 2 (MC) - Moisture Control: 2.2 Coating (C).

## Certifications

### ► UNI 11021

MONOLINE, applied and cured according to the indications in the table "Technical Data," can be used as a coating in environments with the presence of food, according to UNI 11021 "Products and systems for coating environments with the presence of food."

# MONOLINE

- *MONOLINE è idoneo per tutte le superfici per le quali sono richieste le resistenze al lavaggio e alla muffa.*
- *MONOLINE è idoneo ai lavaggi con detergente a base di cloro attivo (detergente tipo A).*
- *MONOLINE è idoneo ai lavaggi con sgrassante alcalino (detergente tipo B).*
- *MONOLINE è idoneo ai lavaggi con disincrostante acido (detergente tipo C).*
- *MONOLINE è idoneo per superfici che devono essere disinfettabili (detergente tipo D).*
- *MONOLINE è idoneo per celle frigorifere.*

## Colour

MONOLINE is available in the RAL and NCS color range. Tints are also made upon specific request. For further information, please contact the Nord Resine Technical Service at [color@nordresine.com](mailto:color@nordresine.com). For the realization of road markings is available in classic colors:

- GIALLO TRAFFICO (TRAFFIC YELLOW)
- ARANCIO TRAFFICO (TRAFFIC ORANGE)
- ROSSO TRAFFICO (TRAFFIC RED)
- BLU TRAFFICO (TRAFFIC BLUE)
- VERDE TRAFFICO (TRAFFIC GREEN)
- BIANCO (WHITE)

## Field of application

MONOLINE is used as a stain-resistant and anti-wear protective treatment of concrete floors of:

- Garages, garages and private parking areas for cars.
- Concrete sidewalks.
- Concrete walls and curbs.
- Flooring of industrial warehouses used as warehouses.
- Storage rooms and attics.
- Cold rooms, with temperatures ranging from +4°C to +8°C
- Asphalt (in the construction of road markings).

MONOLINE is suitable for making road markings both indoors and outdoors, including on existing resins (as long as they do not have silicone or silicate treatments).

## Advantages

- MONOLINE is easy to apply (it can also be marketed for do-it-yourselfers) and guarantees excellent success at the end of the application.
- MONOLINE can also be applied on a substrate that is not perfectly dry.
- MONOLINE does not fear rising moisture from the surface on which it is applied.
- MONOLINE is available in standard colors for horizontal signage or in the RAL and NCS color range (packaging for professional use).
- MONOLINE is driveable.
- MONOLINE is ready to use, so when you finish the application, carefully close the jar and keep the product for future application or touch-up.
- MONOLINE dries and matures quickly.

## Specific preparation of the laying substrate

### ► *New industrial concrete flooring*

- Especially outdoors, check that no concrete curing paint ("Concrete Curing Membrane" or "Concrete Curing Compound") has been applied to the surface. If so, remove the film by scraping or sanding.
- Remove any traces of oils/fats by washing with STRIPPER.
- If the concrete surface has a "too glossy" finish, roughen it slightly by acid washing with NORDECAL FORTE GEL (see instructions in the Data Sheet).
- Seal any cracks and joints with two-component epoxy putty PLAST EPO (see Data Sheet for application details).
- Always remove the powder before applying MONOLINE.

# MONOLINE

- To regulate absorption and avoid variations in tone or opacity, it is recommended to apply RIVLATEX as primer.

After 30 min it will already be overpaintable with MONOLINE.

## ► *Old industrial concrete flooring*

- Remove any traces of oils/fats by washing with STRIPPER.
- If the concrete surface has a "too glossy" finish, roughen it slightly by acid washing with NORDECAL FORTE GEL (see instructions in the Data Sheet).
- Repair any holes or cracks with MALTAFIX, a specific quick-setting product based on cements and fillers (see Technical Data Sheet).
- Wait 24 to 48 hours before proceeding.
- Always remove the powder before applying MONOLINE.
- To regulate absorption and avoid variations in tone or opacity, it is recommended to apply RIVLATEX as primer.

After 30 min it will already be overpaintable with MONOLINE.

## ► *Screeds or screeds in sand and cement*

- Remove the dust and check that the surface is hard and cohesive.
- If the surface "crumbles" (even deeply), consolidate with SW SOLID suitably diluted.
- Apply MONOLINE within 12 to 24 hours after the application of SW SOLID.
- If SW SOLID is not applied, we recommend applying a coat of RIVLATEX to regulate absorption and to avoid changes in tone or opacity.

After 30 min it will already be overpaintable with MONOLINE.

## ► *Concrete or screed flooring already painted*

- Lightly roughen the existing paint by sanding with 120 mm sandpaper or brown Scotch Brite®, as MONOLINE may cause dodging when applying the first coat.
- Always remove the powder before applying MONOLINE.

## Product preparation

- MONOLINE is ready to use, if necessary it can be diluted with 5-10% by weight of water (do not exceed dilution).

- Homogenize the product by stirring for a few seconds with a professional mixer at low speed until a homogeneous color is obtained.

NOTE: Manual mixing with a spatula or other suitable tool is only suitable for small packages (5 kg downwards).

- MONOLINE can be poured directly onto the surface to be coated or into a service container of suitable size for the introduction of the roller.

## Product application

### ► *How to apply*

- The product can be applied:

→ with solvent-resistant 25-cm SHORT HAIR ROLLER.

- Pour MONOLINE directly onto the substrate or remove it with the roller from a suitable serving container.
  - Roll the product by crossing two-three times over the entire surface, making sure to obtain a uniform impregnation of the substrate.
  - Avoid the formation of product stagnation.
  - If you need to treat small surfaces (walls, concrete curbs, etc.) you can apply MONOLINE with a brush.
- SPRAY using an airless sprayer.

### ► *Coverage optimization for TRAFFIC YELLOW, TRAFFIC RED and TRAFFIC ORANGE colorways*

In order to ensure perfect coverage of MONOLINE of the above colors, apply MONOLINE WHITE as the first coat (covering primer).

### ► *Maturation of MONOLINE*

- Ventilating the rooms speeds up the filming process of MONOLINE, which is visible when the layer of paint

# MONOLINE

goes from glossy to opaque.

If the ventilation is excessive and the product is applied by roller, MONOLINE films too soon and can give rise to unwanted imperfections (overlaps, more or less evident colors, shades of opacity).

- Before applying a second coat of MONOLINE, wait until the first coat is well dried.

Table 1 shows the minimum times of overpainting as a function of the application/maturation temperature.

| Application/curing temperature [°C] | Minimum waiting time for overpainting [min] |
|-------------------------------------|---|
| +5°C                                | 90  |
| +23°C                               | 45  |
| +30°C                               | 30  |

Tab. 1: Minimum overcoating times of MONOLINE as a function of temperature.

- The product, from the overcoating time, can be overcoated with itself even after several months, always after cleaning and checking the good condition of the substrate.

- The minimum time for the transit of vehicles (driveway) on MONOLINE depends on the curing temperature of the treated surface.

Table 2 shows the minimum driveway times as a function of the maturation temperature.

| Curing temperature [°C] | Set to vehicular traffic [days] |
|-------------------------|---------------------------------|
| +5°C                    | 4                               |
| +23°C                   | 2                               |
| +30°C                   | 1                               |

Tab. 2: set to vehicular traffic of MONOLINE as a function of temperature.

## ► Protection of MONOLINE with CEM WAX

- For longer life and better cleanability of the MONOLINE coating made in INTERIORS, it is recommended to apply CEM WAX.
- CEM WAX is a ready-to-use aqueous emulsion wax (in a bottle equipped with a practical sprayer) with high scratch resistance, semi-glossy effect and easily renewable (see specific Technical Data Sheet).
- Treatment with CEM WAX should be carried out at least 24 hours after the application of MONOLINE.

## Consumption

| type of application                                 | minimum consumption | maximum consumption | u.m.              | notes |
|---|---------------------|---------------------|-------------------|-------|
| For the application of 2 coats of product           | 0,20                | 0,25                | kg/m <sup>2</sup> | -     |
| For the application of the product as road markings | 0,12                | 0,18                | kg/m <sup>2</sup> | -     |

## Tool cleaning

- Fresh product: cleaning with water (also hydrowashing).
- Hardened product: mechanical removal, soaking in solvents (acetone or nitro thinner) or use of paint strippers (FLUID STRIPPER or GEL STRIPPER).

## Useful tips for laying

- During application, keep the product stirred in the bucket.
- Do not apply when rain is imminent or expected: protect MONOLINE from rain during the first 6-8 hours at +30°C and the first 24 hours at +5°C.
- Apply the product only if the temperature is at least 3°C above the dew point and in any case above +4°C.
- If used in poorly ventilated areas, ensure adequate ventilation.
- At the end of the application, close the package carefully and store in a cool place away from sunlight. The product stored in this way can be used in the future.

# MONOLINE

- Read the Safety Data Sheet carefully before use.

## Maintenance

### ► Routine cleaning of MONOLINE

- The ideal product for cleaning surfaces treated with MONOLINE (with or without CEM WAX) is water with neutral-alkaline detergent.
- Clean with a sweeper, mop, industrial scrubbing machine (also scrubber dryer) or single-disc machine with white Scotch Brite® disc.
- Rinse with water (lukewarm is best).
- Do not use solvent-based products to wash treated surfaces.

### ► Removal and reapplication of CEM WAX

- Removal of CEM WAX becomes necessary when the wax layer is no longer restorable. In this case, it is recommended not to use solvent-based dewaxers because they damage MONOLINE.
- The ideal product for removing CEM WAX is STRIPPER PLUS (see Data Sheet) with dilution between 1:6 and 1:8 by volume with warm water.
- Reapply CEM WAX only after thorough rinsing and perfect drying of the surface.

## Technical Data

### ► PRODUCT IDENTIFICATION DATA (CEM-O-LUX PRIMER)

|  |      | value               |
|--|------|---------------------|
| Density at 20°C, EN ISO 2811-1                     | kg/L | 1,18 ± 0,08         |
| Kinematic viscosity (cup 6 ISO, 23°C), EN ISO 2431 | s    | 90 ± 9              |
| Appearance   | -    | Colored liquid      |
| Odor   | -    | Slightly ammoniacal |

### ► APPLICATION DATA AND FINAL PERFORMANCE

|   |       | value          |
|---|-------|----------------|
| Application temperature   | °C    | From +4 to +30 |
| Surface drying time (20°C, 50%RH), EN ISO 9117-3  | Min   | 15 ± 5         |
| Set to foot traffic (at +5°C)   | Hours | 4              |
| Set to foot traffic (at +23°C)  | Min   | 45             |
| Set to foot traffic (at +30°C)  | Min   | 30             |
| Operating temperature   | °C    | -10 to +60     |
| Surface gloss, gloss 60°, EN ISO 2813   | -     | (9 ± 2)°       |
| Surface gloss, gloss 60°, with CEM WAX, EN ISO 2813   | -     | (30 ± 4)°      |
| Wear resistance – Taber method, grinding wheel CS17, 1000 rpm, load 1 kg, EN ISO 5470-1   | Mg    | 62 ± 6         |
| Resistance to UV and condensation cycles, cycle A (8 hours UVA-340 + 4 hours condensation 50°C), 1000 hours overall, yellowing measurement, RE, ASTM D 4329, produced in white color. | -     | 1,5 ± 0,3      |
| Maximum tyre footprint resistance temperature   | °C    | +50            |

# MONOLINE

| ► TECHNICAL DATA IN ACCORDANCE WITH UNI 11021  | u.m. | value              |
|--|------|--------------------|
| Dirt Intake ( $\Delta L$ ), UNI 10792  | -    | < 0,5              |
| Odor transfer (Appendix A), UNI 11021  | -    | 0                  |
| Washing resistance, UNI 10560  | -    | > 5000             |
| Cleanability ( $\Delta E$ , Appendix B), UNI 10021   | -    | 1,61               |
| Resistance to special washing agents: detergent type A (active chlorine), EN ISO 2812-1    | -    | No alteration      |
| Resistance to special washing agents: detergent type B (alkaline degreaser), EN ISO 2812-1 | -    | No alterations     |
| Resistance to special washing agents: detergent type C (acid descaler), EN ISO 2812-1      | -    | No alterations     |
| Resistance to disinfection agents: disinfectant type D, EN ISO 2812-1                      | -    | No alterations     |
| Resistance to thermal shock (Appendix D), UNI 11021  | -    | No alterations     |
| Resistance to mold, fungal development index from 0 to 4, (Appendix C), UNI 11021          | -    | 0 (no development) |

| ► ADHESION to the substrate, ISO 2409 (squareness test). Legend: 0 = high adhesion, 5 = detachment |                          | value |
|--|--------------------------|-------|
| Existing paint or epoxy resin  | after sanding            | 0     |
| Existing paint or epoxy resin  | without sanding          | 0     |
| Existing paint or polyurethane resin   | after sanding            | 0     |
| Existing paint or polyurethane resin   | without sanding          | 4     |
| Aluminium  | after sanding            | 5     |
| Aluminium  | without sanding          | 5     |
| Galvanized sheet   | after sanding            | 5     |
| Galvanized sheet   | without sanding          | 5     |
| Polycarbonate (PC)   | after sanding            | 5     |
| Polycarbonate (PC)   | without sanding          | 5     |
| Polypropylene (PP)   | after sanding            | 0     |
| Polypropylene (PP)   | without sanding          | 5     |
| Rigid polyvinyl chloride (U-PVC)   | after sanding            | 0     |
| Rigid polyvinyl chloride (U-PVC)   | without sanding          | 0     |
| Glazed tile  | after diamond grinding   | 1     |
| Glazed tile  | without diamond grinding | 2     |
| Porcelain  | after diamond grinding   | 0     |
| Porcelain  | without diamond grinding | 5     |
| Glass  | after cleaning           | 1     |

## Product storage

• 24 months in the original closed packaging, in a dry, covered environment, protected from sunlight and at a temperature between +5°C and +35°C.

## Packaging

| VARIANT   | PACKAGE                  | ADR | PACKAGE / PALLET | COMPONENTS | NOTES |
|-----------|--------------------------|-----|------------------|------------|-------|
| COLORABLE | plastic jar - 0,75 kg    | NO  | -                | -          | -     |
| COLORABLE | plastic bucket - 3,75 kg | NO  | -                | -          | -     |
| COLORABLE | plastic bucket - 15 kg   | NO  | -                | -          | -     |
| WHITE     | plastic bucket - 5 kg    | NO  | 120 buckets      | -          | -     |
| WHITE     | plastic bucket - 20 kg   | NO  | 33 buckets       | -          | -     |

# MONOLINE

| VARIANT        | PACKAGE                | ADR | PACKAGE / PALLET | COMPONENTS | NOTES |
|----------------|------------------------|-----|------------------|------------|-------|
| TRAFFIC YELLOW | plastic bucket - 5 kg  | NO  | 120 buckets      |            | -     |
| TRAFFIC YELLOW | plastic bucket - 20 kg | NO  | 33 buckets       |            | -     |

**ADR legend:**

NO = NON-DANGEROUS goods

P\* = DANGEROUS goods packed in limited quantities (packed as per ADR Chapter 3.4)

Si = DANGEROUS Goods

**LEGAL NOTES**

Any advice concerning the methods of use of our products reflects the current state of knowledge and does not imply any guarantee and/or responsibility as to the outcome of the application. Consequently, the customer must verify the product's suitability for the intended use and purposes by testing the product in advance. The Internet website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this technical sheet: in case of any doubts, verify the date of revision (where missing, use the date of issue) by consulting the "PRODUCTS" section.

**EDITION**

Issue:

Revision: