

TECHNICAL INFORMATION

COLD PLASTIC FOR DECORATIVE AND REFLECTIVE BICYCLE LANE MARKING



COLD PLASTIC FOR DECORATIVE AND REFLECTIVE BICYCLE LANE MARKING

Art.-No. 52403020
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Important Information:

Please consider our General Terms and Conditions and the general notes of the Technical Information Sheet! No liability is accepted for any errors! The information is provided to our best knowledge and experience. This information is, however, no warranty for any properties of the material. We provide this information without obligation, also regarding the rights of third parties. The user has to make sure that the material is appropriate for the respective application.

1 Main characteristics / Fields of application

Cold plastic for decorative and reflective bicycle lane marking...

- belongs to the group of solvent-free, multi-component, reactive systems
- consists of two components (basis component and hardener) which – through chemical interaction – form a duroplastic compound which cannot be thermally plastified thereafter
- is formulated with particular elasticity and is especially suitable for large scale coatings
- is to be broadcasted with glass granulate in order to get sufficient skid resistance
- is suitable for bicycle lane markings with crossing vehicle traffic. Permanent traffic impact requires cold plastic D485 for large surface and anti-skid coatings, or textured plastic RP
- makes danger spots more visible with reflective glass granulate mixture
- is suitable for both bituminous surfaces (e.g. mastic asphalt, asphalt concrete) and concrete
- applicable with rubber squeegee, trowel or screed box

2 Technical Data

Color	Traffic red approx. RAL 3020, other colors on request
Drop-on material: -Glass granulate -Reflective glass granulate mixture	Glass granulate transparent non-reactive (other colors on request) Reflective GG-mixture, red Art.-No.: R15544rot (other colors on request) The drop-on material mixture can differ from RAL-color of base material (cold plastic)
Density	Approx. 1.58 kg/l +/- 0.1
Pot life	5 – 10 minutes (depend on hardener quantity, air - and material temperatures)
Solvent content	Solvent-free, don't add solvent when applying
Solvent for cleaning	Special cleaner for marking machines Art.-No. 3086
Storage stability	6 months, unmixed in sealed original packaging and protected from frost and direct sun light
Trafficability / curing time	The drying (curing) time depends on climate (temperature, humidity, wind), material, layer thickness and road surface. In general, the marking's trafficability must be checked before exposing it to traffic impact
Standard packaging	Cold plastic for bicycle lanes: Tin container of 10/15/25 kg filling weight Hardener powder (BPO): comes in PE-bags, filling weight corresponds with mixing ratio and container content Attention: all hardener types are organic peroxides – they must be packaged separately and transported and stored away from the cold plastic in special containers (special cartons and boxes) Drop-on material: paper bags with PE inlay - 25 kg filling weight
Identification	The regulations and instructions concerning appropriate transport, handling, storage, first aid and measures, toxicology and ecology are stated in our material safety data sheets! The instructions stated on the product label and in the MSDS must be followed.
Processing temperature	min. + 5°C
Surface temperature	+ 5°C to + 45°C
Relative humidity	max. 75% (dew point spreadsheet has to be regarded)
Layer thickness	2 – 3 mm (base layer for bicycle lane marking) Completed base thickness: 3 – 4 mm (base layer and drop-on material)
Theoretical consumption	Approx.: 3.16 – 4.74 kg/m ² Glass granulate: approx. 1 – 1.5 kg/m ² Reflective GG-mixture red: approx. 0.5 – 1 kg/m ² for reflective surfaces Actual consumption depends on the applied layer thickness and the type and state of the surface and broadcasted drop-on material

3 Mixing ratios / Application techniques / Hardener

Product	Art.-No.	Technique	Hardener type
Cold plastic for bicycle lanes traffic red	52403020	Manual application (trowel or squeegee, rubber squeegee or screed box)	Hardener powder
Mixing ratio: reactive component / base component : hardener powder = 100 : 1 (cold plastic) (BPO)			
Between October and April Cold plastic for decorative and reflective bicycle lane markings is delivered in winter formulation, due to weather conditions			

4 Processing Instructions

4.1 Preparation of material and application techniques

Cold plastic for decorative and reflective bicycle lane marking must be homogeneously stirred in its original container before processing. The hardener (hardener powder) is mixed with the base component at the indicated mixing ratio using an appropriate stirring device. Use just the quantity needed for the marking job at hand.

Cold plastic products (reactive systems) are solvent-free and must be applied without adding any solvent (for optimizing application properties, see 4.2.).

The cleaning must occur before the curing of the material is complete using Special cleaner for marking machines (Art. No. 3086).

The uniform material spread of paint and drop-on material (glass granulate / reflective GG-mixture red) over the entire application surface must be observed.

The theoretical consumption of paint and drop-on material is listed in the table "Theoretical consumption of material and drop-on materials" on our homepage (in kg/m²).

4.2 Optimizing of application properties

The application properties and reactivity of the material depend the temperature of cold plastic, air and surface. Proper storage conditions may partly improve application conditions (see Technical Data).

For optimizing application properties, in particular the reduction of viscosity, 1–2 % Condenser for Cold plastic (Art. No. 3044) can be added when the temperatures of material, air and surface are low.

Attention: Add the needed agent quantity only, otherwise viscosity or settle properties can change.

5 Surfaces / pretreatment

5.1 General information

The surface must be dry, clean and free from grease, oil and loose gravel and other contaminations. The surface and potential existing old markings must be checked for their carrying capacity and compatibility with the material to be applied. In case of doubt, test applications and adhesion tests are required. Ideally, old markings should be removed with appropriate mechanical procedures.

5.2 Concrete or cement-bound surfaces

The pavement components that prevent good bonding, especially on new concrete, including fine mortar layers, concrete slurries, concrete after-treatments as setting retarders, paraffin, impregnations on silicate basis, etc. must be appropriately removed (e.g. with high pressure waterjet, fine millcut or similar). We recommend conducting test applications. In case of doubt communicate your concerns in written form.

Before applying Cold plastic for decorative and reflective bicycle lane marking, concrete or cement-bound surfaces should be pretreated with primers:

- a) using spray technique (paint spray machine) with 2-component EP Primer (Art. No. 8609000) or
- b) manually (roller) with 2-component primer B71 for concrete (Art. No. 8010)

It is essential to have a sufficient and uniform coverage with primer in order to obtain an optimum bonding of the cold plastic and the concrete. Primer consumption may vary depending on the concrete's porosity. The humidity of concrete must not exceed 4% when applying 2-component B71 for concrete primer. Primers based on epoxy resins are suitable for residual damp surfaces. Primers diminish bubble formation, likely to occur when concrete surfaces are not primed.

5.3 Bituminous surfaces

Any loose components such as chippings must be removed. Special agents used in new pavement asphalt (e.g. flux oils, adherents) are detrimental to good bonding of markings or cause discoloration. Since these components are hardly removable mechanically, the surface should be exposed to traffic for 4 – 6 weeks. Bonding checks are required.

5.4 Cobbled pavement

Natural, artificial and compound stone pavements are non-static surfaces. Basically they are no suitable surfaces for bicycle lane markings. No guarantee is given in case of crack formation, chippings caused by the movement of pavement parts, poor marking bonding (e.g. natural or artificial stones), penetration of moisture, wear of marking. It is assumed that marking bonding is sufficient. Therefore cobbled pavements are not suitable for Cold plastic for decorative and reflective bicycle lane marking.

5.5 Floor coatings

For markings on floor coatings our indoor marking products should be used.

6 Application techniques

Manually with scraper, rubber squeegee, trowel or screed box. Height-adjustable squeegees should be used to achieve a uniform layer thickness.

Glass granulate is broadcasted uniformly and in excess onto the wet cold plastic layer. The not embedded glass granulate can be swept off after the curing of the cold plastic.

For realization of reflective bicycle lane markings broadcast uniform reflective GG-mixture red onto the **wet** cold plastic layer.

Attention: Due to the limited pot life, cold plastic should be applied without any delay to ensure that drop-on materials are embedded properly.