

TECHNICAL INFORMATION  
2-COMP. FLUOX DAYLIGHT  
LUMINESCENT PLASTIC



# 2-COMP. FLUOX DAYLIGHT LUMINESCENT PLASTIC

Art.-No.: 815..., colored            2-comp. FLUOX daylight luminescent plastic  
Art.-No.: 8110000                    2-comp. UV-clear varnish

Version: 2014-10-14

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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

## 2-Comp. FLUOX Daylight Luminescent Plastic

- is a daylight luminescent system and belongs to the group of solvent free, reactive systems
- consists of 2 components (base component and hardener) which – through chemical interaction – form a duroplastic compound and cannot be thermally plastified thereafter
- the 1 - 3 mm layer is characterized by high durability and excellent abrasion resistance properties compared to other daylight luminescent systems
- can be delivered in different colors and in coarse or fine-grained formulations
- absorbs energy out of light through special pigments and realizes an improved daylight luminescent effect in comparison to standard coatings
- 2-Comp. UV-Clear Varnish improves UV-resistance and makes luminescent plastic less susceptible to dirt
- is usually only applied on surfaces with enhanced traffic impact (e.g. by cars), e.g. emergency areas or leisure facilities
- suitable for indoor bituminous and concrete surfaces (with primer) and most floor coatings

## 2 Technical Data

3-layer system	1st layer (on request)	2nd layer	3rd layer
<b>Product</b>	a) 2-Comp. EP Primer b) Concrete Primer B71	2-Comp. FLUOX Daylight Luminescent Plastic	2-Comp. UV-Clear Varnish
<b>Art.-No.</b>	a) 8609000 b) 8010	8151026 / luminous yellow 8152005 / luminous orange 8152007 / luminous bright orange 8153024 / luminous red 8153026 / luminous bright red 8155400 / luminous blue 8156038 / luminous green	8110000, transparent
<b>Density</b>	a) 0.9 kg/l +/- 0,1 b) 1.01 kg/l +/- 0,1	approx. 1.49 kg/l +/- 0.1 fine approx. 1.49 kg/l +/- 0.1 coarse	1.01 kg/l +/- 0.1
<b>Mixture ratio</b>	a) 2 : 1 with hardener 8623 b) 100 : 3 with hardener powder	100 : 1 with hardener powder	2 : 1 with hardener 8620
<b>Thinner</b>	a) Thinner for 2-Comp. EP (Art.-No.: 3130) b) apply without thinner	apply without thinner	Thinner for 2-comp. Acrylic (Art.-No.: 8630)
<b>Thinner for cleaning</b>	Special cleaner for marking machines (Art.-No.: 3086)	Special cleaner for marking machines (Art.-No.: 3086)	Special cleaner for marking machines (Art.-No.: 3086)
<b>Potlife</b>	a) approx. 1 day b) approx. 5 – 10 min.	approx. 5 - 10 min.	approx. 1.5 h
<b>Overcoating possible after</b>	a) approx. 30 min. b) after curing	after curing	/
<b>Curing time/Trafficability</b>	/	/	overnight*
<b>Wet film thickness to be applied</b>	a) + b) approx. 100 µm	1 - 3 mm	min. 60 µm - max. 100 µm, in 2 thin spray layers
<b>Theoretical consumption</b>	a) + b) approx. 0.10 kg/m <sup>2</sup>	approx. 1.49 up to 4.47 kg/m <sup>2</sup> fine type approx. 1.49 to 4.47 kg/m <sup>2</sup> coarse type	approx. 0.06 kg/m <sup>2</sup> (0.06 l/m <sup>2</sup> ) to approx. 0.1 kg/m <sup>2</sup> (0.1 l/m <sup>2</sup> )
<b>Standard packaging</b>	a) 5/10 l. tin foil container	15 kg - tin foil container,	5/10l - tin foil container

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	b) 5/10/25 kg container with appropriate hardener quantity	hardener powder PE bags – quantity appropriates to base component	2.5/5l - 8620 hardener
<b>Storage stability</b>	6 months, unmixed in sealed original packaging and sheltered from frost and direct sun exposure!		
<b>Identification</b>	The regulations and instructions concerning appropriate transport, handling, storage, first aid and measures, toxicology and ecology are stated in detail in our material safety sheets! The instructions stated on the product label and in the MSDS must be followed		
<b>Processing temperature</b>	min. + 5°C		
<b>Surface temperature</b>	+ 5°C up to + 45°C		
<b>Relative humidity</b>	max. 75% (dew point spreadsheet has to be regarded)		
* In general the markings' stability must be checked before exposing it to traffic impact			

## 3 Processing instructions

### 3.1 Preparation of material and application techniques

Products of 2-Comp. FLUOX Daylight Luminescent Plastic must be homogeneously stirred in their original containers before processing. The exact machine adjustments have to be done according to the manufacturer's instructions. Layer thickness has to be evenly distributed to get consistent daylight properties. 2-Comp. FLUOX Daylight Luminescent Plastic (reactive systems) is solvent-free and must be applied without adding solvent.

The cleaning must occur before the complete curing of the material takes place by using Special Cleaner for Marking Machines (Art.-No.: 3086).

The theoretical material consumption is stated in the table "Theoretical material- and drop-on consumption" on our homepage.

### 3.2 Optimizing application properties

2-Comp. FLUOX Daylight Luminescent Plastic is applicable in its delivery status. The desired viscosity can be reduced (e.g. low material- air- and surface temperatures) by adding about 1 – 2 % condenser (Art.-No.: 3044). The material's spray properties (2-comp. EP primer and 2-comp. UV-clear varnish only) can be optimized by adding 2 – 5 % thinner (see point 2). Only use thinners recommended by the manufacturer.

## 4 Surfaces / pretreatment

### 4.1 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.

**Attention:** 2-Comp. FLUOX Daylight Luminescent Plastic is not appropriate for large asphalt surfaces.

### 4.2 Concrete and cement-bound surfaces

The pavement components on new concrete surfaces that prevent good bonding (fine mortar layer, concrete slurries) must be appropriately removed (e.g. with high pressure waterjet, fine millcut, or similarly effective methods). When applying the plastic on concrete or cement-bound surfaces, the formation of bubbles is likely. Test applications are recommended.

Before applying 2-Comp. FLUOX Daylight Luminescent Plastic on concrete or cement-bound surfaces, a pretreatment with primer is required:

- a) when using spray technique (paint spray machine) with 2-Component EP-Primer (Art.-No.: 8609000) or
- b) manually (roller) with 2-Component B71 for Concrete Primer (Art.-No.: 8010)

It is essential to have a sufficient and uniform coverage with primer in order to obtain an optimum bonding of the coldplastic 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. The 2-Component EP-Primer (Art.-No.: 8609000) is suitable for residual damp surfaces.

### 4.3 Bituminous surfaces

Any loose components such as chippings must be removed. Fluxoils, releasing agents for road rollers are detrimental to good bonding of markings and can cause discoloration of the striping. In the case of discoloration the use of a primer is recommended.

Since a mechanical removal is hardly possible, the surface should be exposed to traffic for 4 - 6 weeks. Before applying 2-comp. FLUOX daylight luminescent plastic conduct bonding checks. Indoor bituminous layers are less compact than road asphalt. Therefore cold plastic may cause crack formation on such indoor asphalt layers.

### 4.4 Cobbled pavement

Natural, artificial and compound stone pavements are non-static surfaces. In general they are critical surfaces for 2-Comp. FLUOX Daylight Luminescent Plastic. No guarantee is given in cases of crack formation, chippings caused by the movement of pavement parts, poor marking bonding (e.g. natural or artificial stones), penetration of moisture and wear of the marking.

Before applying 2-Comp. FLUOX Daylight Luminescent Plastic on concrete stones surfaces has to be primed with 2-Component B71 for Concrete Primer (Art.-No.: 8010). Joints of cobbled pavements remain visible at the surface of 2-Comp. FLUOX Daylight Luminescent Plastic.

### 4.5 Floor coatings

Synthetic resin floor products usually consist of epoxy resins or polyurethane. They are differentiated into sanded and non-sanded coatings. Such coatings must be considered as critical surfaces. Due to the variety of different coatings we recommend conducting test applications and adhesive checks and to look up the coating's Technical Information, since these data sheets often provide hints regarding the marking process. Ask our technical support for further information.

### 4.6 Other surfaces

Inside buildings different surfaces are possible (e.g.: PVC, wood, chipboards). Test markings are mandatory on these surfaces. The 2-Comp. FLUOX Daylight Luminescent Paint System could be an option. Metal surfaces are not suitable for 2-Comp. FLUOX Daylight Luminescent Plastic.



## 5 Application techniques

Manually with screed box, trowel etc.. Masks and tapes ensure sharp marking edges. The following marking sequence needs to be followed:

- 1. 2-Component EP-Primer (as needed)**  
apply evenly on concrete
- 2. 2-Comp. FLUOX Daylight Luminescent Plastic**  
even thickness ensures uniform luminescent properties
- 3. 2-Component UV Clear Varnish**  
protects luminescent plastic against dirt and wear and improves luminescent properties

Regard point 2: the 2-component UV clear varnish needs enough time for curing. Otherwise the varnish's surface gets soiled.