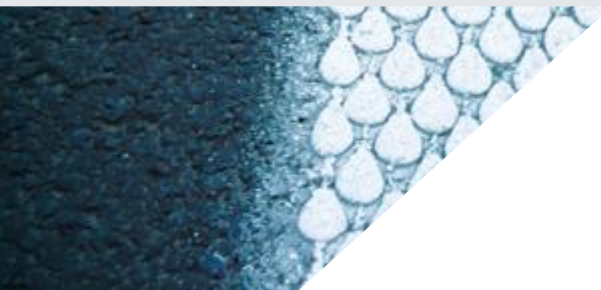
SWARCO LIMBURGER LACKFABRIK GmbH

Road Marking Systems

2-comp. FLUOX daylight luminescent paint system

TECHNICAL INFORMATION



SWARCO I First in Traffic Solutions.

2-comp. FLUOX daylight luminescent paint system

Art.-No.: 8119016 white, 2-comp. FLUOX Primer
Art.-No.: 811....., colored 2-comp. FLUOX daylight luminescent paint
Art.-No.: 8110000 transparent, 2-comp. FLUOX UV-clear varnish

Special application - daylight luminescent paint system

Version: 2015-01-29

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2-comp. FLUOX daylight luminescent paint system SWARCO LIMBURGER LACKFABRIK GmbH
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1 Main characteristics / Fields of applicaion

2-comp. FLUOX daylight luminescent paint system

- is a multi-layer marking system, consisting of: 2-comp. primer, 2-comp. daylight luminescent paint, 2-comp.UV clear varnish and belongs to the group of aromatic free, solvent-containing 2-comp.-paints
- the system needs all three layers to get enough daylight luminescent properties in different colors
- absorbs energy out of light by special pigments and realizes daylight luminescent effect
- is used for fluorescent coatings and is suitable for metallic surfaces (test application and pretreatment necessary)
- used for buildings, emergency exits, leisure facilities and on floors with increased impact
- suitable for indoor bituminous & concrete surfaces and most floor coatings
- suitable for airless- and airspray application techniques

2 Technical Data

3-layer system	1st layer	2nd layer	3rd layer
Product	**Primer for 2-comp. daylight luminescent paint system**	**2-comp. daylight paint**	**UV clear varnish for 2-comp. FLOUX daylight luminescent paint system**
Colors	8119016 / white	8111026 / luminous yellow 8112005 / luminous orange 8112007 / luminous bright orange 8113024 / luminous red 8113026 / luminous bright red 8115400 / luminous blue 8116038 / luminous green	8110000 / transparent
Density	1.52 kg/l +/- 0.1	1.04 kg/l +/- 0.1	1.01 kg/l +/- 0.03
Mixture ratio	Base component : hardener (2-comp.Primer) (8623) **20 : 1**	Base component : hardener (2-c.daylight paint) (8620) **5 : 1**	Base component : hardener (2-c.UV clear varnish) (8620) **2 : 1**
Thinner : on request	Thinner for 2-comp. EP (Art.-No.: 3130)	Thinner for 2-comp. Acrylic (Art.-No.: 8630)	Thinner for 2-comp.Acrylic (Art.-No.: 8630)
Thinner for cleaning	Special cleaner for marking machines (Art.-No.: 3086)	Special cleaner for marking machines (Art.-No.: 3086)	Special cleaner for marking machines (Art.-No.: 3086)
Potlife	approx. 1 day (reduced by high temperature)	approx. 1.5 hours	approx. 1.5 hours
Overcoatable after	approx. 3 hours	approx.. 4 hours	/
Curing time / Overrollablity	/	/	overnight*
Wet film thickness to be applied	**approx. 200 µm - 400 µm** ensure uniform and sufficient coverage	**min. 100 µm - max. 600 µm** if necessary up to 600µm to get enhanced luminous properties. Layers with more than 300µm thickness: spray in two layers	**min. 60 µm – max. 100 µm** if possible spray in 2 thin layers
Theoretical consumption	approx. 0.304 kg/m² (0,20 l/m²) appox. 0.608 kg/m² (0,40 l/m²)	approx. 0.104 kg/m² (0.1 l/m²) up to approx. 0.624 kg/m² (0.6 l/m²)	approx. 0.06 kg/m² (0.06 l/m²) up to approx. 0.101 kg/m² (0.1 l/m²)
	*Markings should be checked prior to opening to traffic		

3-layer system	1st layer	2nd layer	3rd layer
Product	**Primer for 2-comp. daylight luminescent paint system**	**2-comp. daylight paint**	**UV clear varnish for 2-comp. FLOUX daylight luminescent paint system**
Standard packaging	5.0 l - Tin foil container 0.25 l – hardener 8623	5.0 l - Tin foil container 1.0 l - hardener 8620	5.0 l - Tin foil container 2.5 l - hardener 8620
Identification	The regulations and instructions concerning appropriate transport, handling, storage, first aid & 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.		
Storage stability	6 months, unmixed in sealed original packaging and sheltered from frost and direct sun exposure!		
Processing temperature	min. + 5°C		
Surface temperature	+ 5°C up to + 45°C		
Relative humidity	max. 75% (dew point spreadsheet has to be regarded)		

3 Processing instructions

3.1 Preparation of material and application techniques

All three products of the 2-comp. FLUOX daylight luminescent paint system must be homogeneously stirred in its original container before processing. The exact machine adjustments have to be done according to the manufacturers` instructions. Layer thickness has to be evenly distributed to get consistent daylight properties.

Theoretical material consumption is stated in:

- Table “Theoretical material- and drop-on consumption” on our homepage.

Machines and tools must be cleaned before the paint cures, using Thinner for 2-comp. paints (see point 2) or Special cleaner for marking machines (Art.-No.: 3086).

3.2 Optimizing of application properties

Products are ready for use as delivered and usually need no thinning It is possible to optimize the materials’ spray properties by adding 2 - 5% Thinner (see point 2). Use thinner recommended by manufacturer only.

4 Surfaces / pretreatment

4.1 General information

The surface must be dry, clean and free from grease, oil, loose gravel & other contaminations. The surface and any existing markings must be checked for their carrying capacity and compatibility with the material to be applied. In case of doubt, application and adhesion tests are required. Ideally, old markings should be removed with appropriate mechanical procedures. Drying/curing time of 2-comp. FLUOX daylight luminescent paint system can be prolonged if 2 comp. FLUOX daylight luminescent paint system is applied on old markings.

Attention: The 2-comp. FLUOX daylight luminescent paint system is not appropriate for large asphalt surfaces.

4.2 Concrete and cement-bound surfaces

Parts on new concrete surfaces that prevent good bonding (fine mortar layer, concrete slurries) must be appropriately removed (e.g. with high pressure water jet, fine millcut, or similarly effective methods). When applying the paint to concrete or cement-bound surfaces, the formation of bubbles is likely to occur. In order to prevent the formation of bubbles the concrete should be pretreated with Primer for 2-comp. FLOUX daylight paint blended 1:1 with Thinner for 2-comp. EP (Art.-No.: 3130) and sprayed with approx. 150µm wet film thickness. Once dried the undiluted Primer can be applied.
Humidity of concrete must not exceed 4% during the marking work.

4.3 Bituminous surfaces

Any loose components such as chippings must be removed. Flux oils of new bituminous surfaces are detrimental to the bonding of markings and may lead to discolouration. Since these oils cannot be removed mechanically, the primer should be applied after 4 - 6 weeks waiting time in order to conduct bonding and to avoid discolouring.

The following should also be taken into consideration: new bituminous surfaces applied inside are not as good compacted as road asphalt. Therefore underneath the marking or sidewards the marking cracks / chippings may occur. Note information stated in the Technical information.

4.4 Cobbled pavement

Natural, artificial and compound stone pavements are loose surfaces that move. Basically these are not suitable surfaces for the 2-comp. FLUOX daylight luminescent paint system. 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, wear of marking. Test applications are recommended. Joints of cobbled pavement remain visible at the surface of 2-comp. FLUOX daylight luminescent paint system.

4.5 Floor coatings

Synthetic resin floor products usally consist of epoxy resins or polyurethane. They are differentiated into sanded and non-sanded coatings. Such coatings must be considered as critical surfaces. If the synthetic resin coatings are older than 3 days, it is essential for a successful application of 2-comp. FLUOX daylight luminescent paint system, that the floor is roughened with adequate means (e.g. blastrac, fine millcut or grinding). If the marking is applied within 2 days after coating application, roughening is not necessary. Due to the variety of different floor coatings we recommend conducting test applications, bonding and coating checks. Technical Information is contained in the product data sheets, which give hints and tips about markings. If necessary contact our technical service department.

4.6 Other surfaces

Inside buildings different surfaces are possible (e.g.: PVC, wood, chipboards). Test markings with Primer for 2-comp. FLUOX daylight luminescent paint system are mandatory. Metal surfaces need pretreatment and test markings.

5 Application techniques

With marking airspray /airless machines or by hand spray gun or roller.
Application of 2-comp. FLUOX system is to be conducted in the following sequence:

1. 2-comp. FLUOX primer
   apply evenly
2. 2-comp. FLUOX paint
   apply evenly
   depending on applied thickness: two layers are necessary
3. 2-comp. FLUOX UV clear varnish
   protects FLUOX paint against dirt and wear and prolongs lifetime

The above mentioned layer thicknesses and number of stated spray operations have to be applied in order to get the optimal daylight luminescent properties.
Paint thickness can be modified between 100 µm to max. 600 µm, depending on required daylight luminescent effect. Follow instructions regarding waiting times stated in the spreadsheet.
The 2-component FLOUX clear varnish needs to be allowed sufficient time to dry. Varnished surfaces can otherwise become soiled or damaged and black tire tracks may occur.