

Nachleuchtdispersionssystem

Afterglow dispersion system

3-layer

1st layer: water-thinnable primer for white phosphorescent dispersion

2nd layer: water-thinnable phosphorescent dispersion, yellow-green

3rd layer: water-thinnable UV clear varnish for phosphorescent dispersion, colourless

1. PLACE	☒ Indoors	☐ Outdoors
2. TYPE	☒ Line	☐ Surface ☒ Symbol TS
3. STRESS	☐ Low	☒ Medium ☐ High

General description

Area of use:

The afterglow dispersion system is used for installing optical safety systems and as guidance systems for emergency signage (e.g. in stairwells, underground car parks, etc.). The afterglow dispersion system is suitable for bituminous surfaces (mastic asphalt, asphalt concrete) and concrete surfaces (cement floors).

Not suitable for synthetic resin floors, paving substrates (natural stone, artificial stone and composite stone paving) and large-area markings.

Only to be used as floor markings in areas that are accessible to pedestrians, not to vehicles.

Product features:

The paint is water-thinnable and phosphorescent. The afterglow dispersion, which contains special pigments, has the property of emitting light for a period of time in the dark after sufficient exposure to light (excitation). The stimulation of the afterglow dispersion can be achieved by UV radiation, as well as daylight or artificial light. In order to achieve high functionality of the afterglow system, a strong light source should be installed near the safety marking.

Technical data

Product name:	1st layer Water-thinnable primer for phosphorescent dispersion	2nd layer Water-thinnable Afterglow dispersion	3rd layer Water-thinnable UV clear coat for afterglow dispersion
Art. no.:	40-9-1	40-9-2	40-9-3
Colour tone:	White	Yellow-green	Colourless
Density:	1.63 g/cm ³	1.24 g/cm ³	1.04 g/cm ³
Thinner:	Thin with water if necessary	Thin with water if necessary	Thin with water if necessary
Reworkability:	Approx. 5–15 min. (must not be sticky – dust dry)	Approx. 10–25 min. (must not be sticky – dust dry)	10 – 15 min.
Drying time/ Walkability	-	-	Approx. 1 hour after the last application
(The system should be tested for resilience before release)			
Layer thickness to be applied:	Approx. 200 µ (ensure good, even coverage throughout.)	Min. 100 µ Depending on requirements, up to 600 µ can be applied to extend the luminosity – possible in two spraying steps	Min. 60 µ, up to max. 100 µ if required – possible in two spraying steps
Afterglow intensity:	–	Approx. 10 to 60 mins. Depending on the layer thickness	-
Theoretical Consumption	Approx. 0.326 kg/m ² approx. 0.20 l/m ²	Approx. 0.12 kg/m ² (0.086 l/m ²) up to 0.74 kg/m ² (0.5 l/m ²)	Approx. 0.063 – 0.104 g/cm ³ approx. 0.100 l/m ²
Container sizes	1 l, 5 l	1 l, 5 l	1 l, 5 l

Working temperature: min. +10°C

Substrate temperature: +10°C to +45°C

Rel. humidity at 23°C: max. 75% (note dew point)

Description of use

Type of application: The afterglow dispersion system can be applied mechanically using standard marking machines (airless or atomiser technology) or manually using a hand spray gun or lambskin roller.

Substrate preparation:General preparation

The substrate must be structurally sound, dry, clean and free from separating substances (oil, grease, wax).

The substrate and any existing old paint coatings must be checked for load-bearing capacity and compatibility with the afterglow dispersion system to be applied

(Perform adhesion test/test coating).

The drying time may be delayed if markings are applied over existing old markings. Therefore, old markings should ideally be removed using suitable mechanical methods.

Concrete or cement-bound substrates

The surface components that interfere with adhesion (fine mortar layer/concrete slurry) on new substrates must be removed using suitable methods (e.g. high-pressure water jetting, fine milling, etc.).

When applied to concrete or cement-bound substrates, blistering and adhesion problems may occur. For this reason, it is necessary to thin the primer 1:1 with water and spray it on thinly (approx. 150 µ) as a primer. Once dry, apply the primer unthinned in a layer of sufficient thickness to provide full coverage. The moisture content of the concrete must not exceed 4% when applying the primer.

Bituminous substrates

All loose components, such as grit, must be removed. The flux oils present on the surface of new bituminous road surfaces interfere with the adhesion of subsequent coatings and can cause discolouration of the markings. The application should therefore be carried out 4-8 weeks after completion of the bituminous surface.

When applying the afterglow system indoors, it should be noted that bituminous substrates are not as compacted as on roads, which can lead to cracking.

The preparation of the substrate and the execution of the painting work must correspond to the current state of science and technology. Please also refer to the current BFS data sheets and VOB, Part C, DIN 18363 Painting and varnishing work.

Application:

The afterglow dispersion system must be applied in the following order: water-thinnable primer, afterglow dispersion and water-thinnable UV clear coat.

The respective layer thicknesses and the number of specified spray passes must be adhered to.

The water-thinnable primer must be applied evenly across the entire surface to prevent light absorption.

The afterglow dispersion can be increased depending on the desired intensity duration of the afterglow effect, but should not exceed 600 µ.

The water-thinnable UV clear coat protects the UV-sensitive afterglow pigments, thereby extending the service life of the afterglow dispersion system.

Walking on the surface too early can lead to negative effects such as black discolouration of the surface due to rubber abrasion.

If the final coating is applied with several containers, ensure batch uniformity.

Luminance in mcd/m ² according to				decay time
1 min.	10 min.	30 min.	60 min.	in mins.
1506	194	63	28	2430

Cleaning the tools:

Immediately with water.

Storage:

Cool, dry and frost-free. Close opened containers tightly and turn them upside down briefly.

VOC value:

This product is not subject to any VOC category.

Labelling

Please refer to our current safety data sheet on the Internet at www.jansen.de

The technical information has been compiled in accordance with the current state of science and technology. However, the individual recommendations cannot be considered to be binding as application and processing methods are beyond our control and the different nature of the substrates requires working methods to be tailored accordingly from a professional and craftsmanship perspective. The recommendations do not release the customer from the obligation to test the supplier's products for their suitability for the intended use under their own responsibility. The "General Terms and Conditions of Delivery and Payment of the Paint Industry" in the recommendation approved by the Federal Cartel Office on 01 January 2018 shall apply. With the publication of this data sheet, all previous data sheets for this product lose their validity.

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