JALITE®
Photoluminescent Safety Products
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JALITE SFE GENERAL APPLICATION GUIDE

DESCRIPTION:

The JALITE SFE coating system has been developed to provide unique photoluminescent and protective properties to concrete, steel and other common substrates where the identification/awareness of constructional components is required. The material is supplied as a two pack system, comprising of pre-weighed amounts of white base coat, photoluminescent top coat and curing agent for each specific coat. After mixing individual base and curing agent components together, an easily applied chemical and abrasion resistant finish is produced with exceptional photoluminescent properties.

TYPICAL USES:

The ideal solution for floor coverings where a directional instruction / surface identification is to be achieved. The great advantage of the JALITE SFE coating system is that there is no requirement for a back up power source, the photoluminescent pigment absorbs the ambient light and stores the energy, when the ambient light source is terminated the JALITE SFE coating system illuminates independently. The physical composition of the system provides a waterproof, tough chemically resistant coating combined with excellent photoluminescent properties. Typical environments include factories, warehouses, stairways, under-paths, superstores, industrial complex areas, abattoirs, offices, hospitals etc.

ADVANTAGES:

- Solvent free, low odour.
- Very good chemical resistance.
- Excellent adhesion to concrete and steel.
- Excellent photoluminescent properties.
- High build.
- Tough and durable.
- Easily applied.
- Hygienic and easily cleaned.

TYPICAL PROPERTIES:

PROPERTIES	RESULT
Pot Life @ 20^{O}C	60 minutes
Pot Life @ 10^{O}C	120 minutes
Colour	White and Photoluminescent
Tack Free Time @ 20^{O}C	6 hours
Hard Dry Time @ 20^{O}C	14 hours
Full Chemical Resistance	7 days @ 20^{O}C
Coverage	0.5 – 0.75 Kg/m^2/coat
Adhesive strength to concrete	3.9N/mm^2 (concrete failure)

Adhesive strength to Mild Steel	>12N/mm^2
Chemical Resistance	Excellent resistance to dilute acids and alkalis, oil, petrol, diesel, vegetable oils.

PROCEDURE:

1) Surface Preparation

a) Concrete shall be a minimum of 21 days old and/or the residual moisture content shall be below 6%. Ensure that the concrete is clean and free from dust, laitance, grease, oil, curing compound, existing paint finishes, etc. Blow holes and defective concrete shall be made good using a proprietary repair compound. Suitable mechanical treatment, such as vacuum grit-blasting is the preferred treatment prior to application; this ensures a mechanical “key” for the coating.

b) Steel surfaces shall be shot blasted or grit blasted to a nominal Sa 2.5 Swedish standard. All dust and grease shall be removed prior to coating application. If a delay is likely to occur between blasting and application then it is recommended that a coat of steel primer be applied as holding primer will prevent flash rusting.

2) Mixing

The WB white coat must always be applied first. The SFE Photoluminescent top coat must be mixed once the WB white coat has cured. Select a suitable container to accommodate the combination of curing agent and base coat for the specific component. Jalite does not recommend separating the system into smaller weights; a full 5kg gives 6-8m^2 coverage. Pour the contents of the base and curing agent into the nominated container, mix thoroughly preferably by mechanical means until a uniform colour is achieved.

Pack weights:

White Base Coat = 1.6kg Base / 3.4kg Curing Agent

Photoluminescent Coat = 3.92kg Base / 1.08kg Curing Agent

3) Application

The mixed WB white coat must be applied first, once cured the mixed SFE Photoluminescent coat can then be applied. Apply by brush, at a rate of 500 - 750 g/m^2. After a minimum of 6 hours (based on room temperature of 20^{O}C) and before a maximum of 48 hours, apply the photoluminescent coat at the same rate. Should a tactile finish be required an appropriate silica sand or equivalent may be introduced to the photoluminescent coat in the wet/tacky transition stage (Due to the high build nature of this product, care must be taken not to introduce the tactile material prematurely. Premature introduction of the tactile material will produce the undesired result of the material sinking.), once cured brush off any excess material.

Please take note that curing agents are not compatible. The WB White Curing agent is intended solely for WB White Base Coat and SFE Photoluminescent curing agent is intended solely for SFE Photoluminescent Top coat.

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4) Equipment Cleaning

Clean equipment with JALITE Toolclean prior to curing of the coating.

5) Curing

Allow to cure for a minimum of 24 hours @ 20^{O}C prior to light foot traffic access and 48 hours @ 20^{O}C prior to vehicular trafficking. 7 days cure @ 20^{O}C is recommended prior to exposure to chemicals.

6) Packaging

The JALITE SFE coating system is supplied in 5kg packs [5kg WB White Base Coat and 5kg SFE Photoluminescent Top coat & 1 litre Toolclean].

7) Coverage

A 5kg pack is sufficient to coat 6 - 8m^2 of surface with the recommended coat treatment.

8) Storage and Shelf Life

Store in dry conditions at temperatures between 10^{O}C and 25^{O}C. Do not expose to freezing conditions. The JALITE SFE coating system has a minimum of 12 months shelf life when stored in original, unopened containers in accordance with manufacturer instructions.

9) Limitations

Do not apply to wet or uncured concrete surfaces. Do not apply at temperatures of 5^{O}C or less.

10) Health and Safety

Wear gloves and goggles. Wash off splashes immediately with soap and water. Please refer to Material Safety Data Sheet for additional information.

The JALITE SFE coating system shall be applied strictly in accordance with manufacturer instructions.

For specific advice regarding any aspect of this product, please consult our Technical Section.

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11) Expected Photoluminescent Performance

Typical photoluminescent performance when applied in accordance with the manufacturers instructions. Luminance testing carried out in accordance with DIN 67510, excitation charge of 5min @ 1000 Lux with D65 illumination source.

Time (min)	0	2	10	30	60
Luminance (mcd/m^2)	6345.9	944.1	202.6	61.5	27.8

Jalite SFE Luminance Performance