

Nightstar

Photoluminescent Coating



Technical Data Sheet

Effective: September, 2016

Description

Nightstar is a photo luminescent (glow in the dark) coating. This highly abrasion resistant, single component, product is almost odorless. It is a highly chemically and wear resistant coating.

Uses

Nightstar is suitable for the following applications:

- As clear demarcation of escape routes or emergency exits.
- Demarcation of stair treads landings, exits and entrances, danger zones, congregation and smoking areas.
- Hazard warnings in thoroughfares, work places and public transport
- Marine craft, shipping and other on and offshore marine applications.
- Roads and runways
- Locations which are difficult to illuminate (e.g. unlit areas with limited power supply)

Advantages

Nightstar assists in the reduction of energy costs, where artificial lighting can be significantly reduced along with other advantages such as:
Instant, intense glow after removal of light source. The surface will continue to glow in excess of 10 hours after light source is extinguished.

- Very rapid recharge when exposed to natural or artificial light.
- Single component liquid which is directly applied from the container.
- No mixing of components.
- Cures quickly, to a durable surface with consequent reduced down time.
- Is applied in a single coat over a white or light colored surface e.g. Smarttech **Polarcoat**
- Superb adhesion to wood, metal, gypsum plaster, coated surfaces, concrete & masonry, glass & ceramics and many other surfaces.
- Odorless, no vapors or dangerous solvents
- Seamless and joint free, monolithic surface
- **Fast curing from 23°F**
- Isocyanate free

Surfaces

Should always be applied to a sound, white or light colored surface for optimal results

- Uncoated metal
- Concrete
- Gypsum
- Glass
- Ceramic Tiles
- Treated or untreated wood
- Masonry

Where a quality base coat is needed, particularly in the case of flooring, Smarttech Polarcoat is recommended.

Color

Light Yellowish Green

Directions for Use Surface Preparation

Surfaces must be sound, clean, free of dust and loosely adhering particles, oil, fats, mildew and algae. Concrete and masonry surfaces, ideally, should not have a moisture content above 8%. Surfaces should be free of laitance and efflorescence as well as any other deposits that may interfere with the bond to the concrete or masonry. Before applying **Nightstar**, surfaces must be wiped down with a cleaning fluid such as denatured alcohol or other appropriate cleaning method ensuring that no residue remains.

The product must be gently stirred before use, taking care not to entrain air, as this will create air bubbles in the coating which may form small craters on curing. Should this occur allow the product to stand with the lid in place for between 5 and 10 minutes to allow air to escape.

After preparation Smarttech **Polarcoat** should be applied as basecoat, where surfaces are not already white, or a very light pastel shade. **Polarcoat** is applied at approx. 160ft²/gal (approx. 10mils thick) by brush or roller. Allow to cure until a subsequent coat will not disturb the surface (between 1 and 2 hours depending upon temperature and humidity).

Application

Apply a coat of **Nightstar** at a minimum rate of 120ft²/gal (13 to 15 mils thick). Allow to dry and apply a second coat at 120ft²/gal to achieve a final thickness of 30 mils for optimum product performance (this excludes the thickness of any white base coat applied)

Curing

The surface of **Nightstar** becomes touch dry after 2 hours and is foot trafficable after 12 hours depending upon temperature and humidity.

Cleaning

Uncured **Nightstar** can be removed with denatured alcohol. Cured **Nightstar** can only be removed mechanically.

Application Conditions:

Ambient Temperature 23°F to + 113°F
Surface Temperature 23°F to + 130°F
Do not apply over frozen matter!

Coverage:

Polarcoat: 160ft²/gal

Nightstar:

Min. 120ft²/gal per coat at 15 mils wet film thickness (Min. 2 coats required to achieve necessary 25-30 mils thickness)

Drying time:

Approx. 2 hours at 60°F and 50% rel. Humidity
Fully trafficable approx. 8 hours after 60°F and 50% rel. humidity.
Fully cured after 14 days.

Shelf Life

Unopened Containers:
12 months from production.

Caution:

Carefully read the Safety Data Sheet for **Polarcoat** before use. Avoid contact with eyes and skin as this may cause irritation. Should contact with eyes occur, rinse for 15 minutes under running water. If swallowed do not induce vomiting and seek the advice of a physician.
The information details given on performance is approximate. These can be affected by substrate, environment, type of building element being coated etc. All information given is based upon **Nightstar** having a final thickness of 25 to 30 mils.

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Important Notice:

Please always consult our website at www.smarttechcoatings.com to check that you are reading the most up to date data on this product.

Note:

The information contained in this technical data sheet is based upon our experience and is therefore not binding. All data are laboratory values, which may differ in practice. Therefore, these represent no assurance of characteristics. This data is given in order to allow compliance with respective local specificities. The variety of possibilities and the specific project details in combination with the products cannot be handled within the framework of this data sheet. If you have questions, please contact us. It is the user's responsibility to be informed about the characteristics of the products as well as the technical information and proper processing. Please take careful note of all manufacturers' specifications, e.g. information on surface pretreatment. A specific result cannot be guaranteed due to differing prevailing individual conditions, which can lead to differing result. Preliminary tests are advised to test for the desired result.

Type	Synthetic Photoluminescent Polymer
Shelf life and Storage conditions	unopened 12 Months, Storage Temp. 40 to 90°F
Application Temperature	23-113°F (Ambient) 23-130°F (Surface)
Total Thickness (Smooth Surface)	approx. 25 to 30 mils
Total weight	12.5lb/gal
Drying Time (touch dry) Trafficable	after approx. 8 hours at 60°F and 50% rel. humidity
Density	12.5lb/gal
Drying time (touch dry)	approx. 2 hours at 60°F and 50% rel. humidity
Full Cure	after approx. 14 days
Coverage	Approx. 120ft ² /gal per single coat 15mils thick 2 coats required to yield between 25 and 30 mils (Roughness, Unevenness, highly porous surfaces must be taken into account))
Packaging/ Article Nightstar	Packaging Bucket 1pint Bucket 1quart