

Technical Data Sheet

NightGlo NGX300 Long Afterglow Phosphorescent Pigment

General description

NGX300, is a phosphorescent pigment comprised of a combination of strontium aluminate (SrAl_2O_4) and carefully selected dopants or activators, NGX-300 can absorb and store energy from a light source that it subsequently releases as visible light, or an afterglow, even after the light source is removed. NGX300 is notable for its impressive afterglow duration; emitting light for more than 10 hours after light absorption. This is advantageous in scenarios where long-lasting visibility is essential, especially in low-light or dark conditions. NGX300 also exhibits excellent stability and resistance to various weather conditions. Its durability ensures consistent performance and sustained phosphorescent effects.

Applications

- Safety signage and emergency exit markings
- Automotive and aerospace instruments
- Home décor and lighting
- Fishing lures
- Sporting goods

Available Colors

Product Code	Color
NGX-300	NightGlo

Packaging:

1 Pail = 44 lbs (20kg)

Storage & shelf life:

120 months when kept in closed original packaging in a dry place at ambient temperature.

Safety & regulatory:

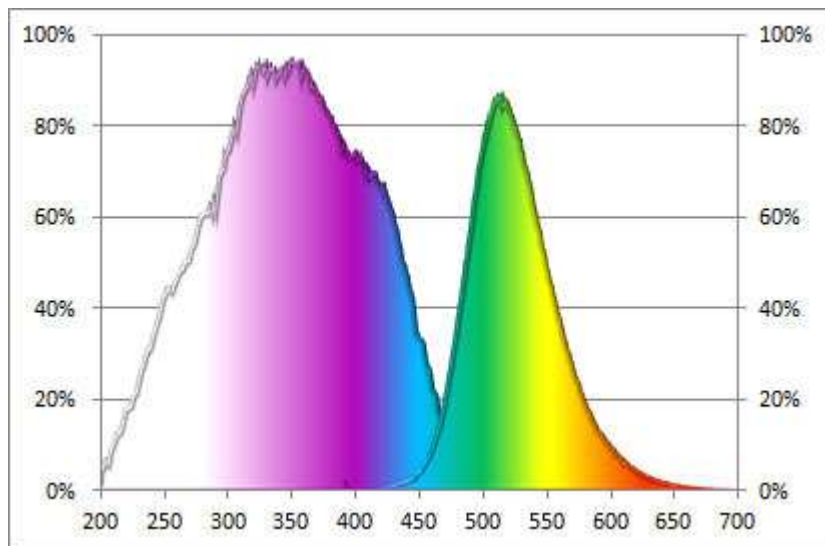
Safety Data Sheet available on request.

Physical properties

Delivery form	Powder
Emission color	Yellow Green
Daylight body color	Light Green to Yellow Green
Specific gravity	3.6
Particle size (D50)	-25 Microns
Allowable Temp.	$\leq 250^\circ\text{C}$
Mohs hardness	4.0
Luminance	220-550 mcd/m ²
Afterglow Time	> 10 hrs

Disclaimer: Our technical advice, information, statements, whether given verbally, in writing, or in the form of test results, is offered for your guidance without warranty. No warranty for fitness for a particular purpose is made. This also applies where protective rights of third parties are involved. It does not release the user from obligation to test the suitability of the products and formulas for the intended process and applications. Our guarantee is limited to the consistent quality of our product.

Excitation-Emission Spectrum



Excitation: 5 min / 1000 lux (Xenon lamp XBO) afterglow luminance [mcd/m ²]		
1 min	5 min	10 min
2737	702	358

Handling

When handling phosphorescent pigment, some precautions should be taken when:

- Working with strong acids since this can cause dissolution of phosphorescent pigments. In the presence of high relative humidity and sunlight, phosphorescent pigments can exhibit darkening.
- It is not recommended to mill this product since this will degrade the phosphorescence due to breakdown of the crystal structure of the phosphorescent pigment. Mild stirring should be used to incorporate NG-200 into a vehicle.
- It is slowly decomposed in water.

The addition of colorless extenders or colored pigments will reduce the intensity of the phosphorescence. Testing is recommended in the intended application to determine suitability.

Recommended concentration is approximately 10% by weight.