Nano Shield P1

Product Description

Nano Shield P1 is a 100% ACRYLIC based high solids, heavy bodied elastomeric coating designed for all substrates. Nano Shield P1 forms a seamless and flexible layer of protection for each applied layer. This durable coating is designed to dramatically reduce the surface temperatures. NSP1Coating is formulated with UV reactive chemicals for enhanced film forming characteristics and dirt pickup.

Nano Shield is an aqueous dispersion formed by different types of solid insulating particles, additives and water, where the dimensions of its ingredients are between 30nm and 12mm.

NSP1 is a polymeric compound that has maximum fireproofing performance.

When applied on an appropriate substrate, it becomes a solid film, given the evaporation of the volatile component and / or chemical reaction, for the purpose of photo and thermal protection.

Benefits

- Nontoxic and non-flammable making if safe around humans and in closed enclosures.
- The damaged coating can be repaired easily.
- Water as a solvent.
- Ambient curing material.
- Does not absorb humidity.
- Adhesion to most surfaces with minor surface preparation.
- Elasticity to accompany the substrate contraction and expansion phenomena
- Sprayable application and ease of maintainability.
- Will function with direct (impingent flame) or indirect heat.
- Adapts to complex geometries due to high viscosity and adhesion properties.
- Improved thermal properties at higher temperatures. Emissivity will account for more heat transfer at temperatures above infrared spectrum.
- Sacrificial operating temperatures up to 1800^{0}C with minimal added weight
- Between -35 to 1200^{0}C, it outperforms competing products with its ease of application and superior technical performance.

Specifications

Color	Light beige
Appearance	Emulsion
Aspect	White or slightly beige
Odor	There is no predominant odor.
PH	Not applicable
Fusion point	Not applicable
Freezing point	0°C
Initial boiling point	100°C
Evaporation Rate	<1
Flash point	Not applicable
Flammability	Non flammable
Lower / Upper Flammability and Explosive Limits	Not applicable
Vapor pressure	No data available
Vapor density	(Air = 1) 3 for 4
Relative density	between 700 & 1000 kg/m3 (between 1.00 & 1.25 g/cm3 density) at 15°C
Non-volatile solids	63%
Solubility in water	Soluble in water
Auto-ignition temperature	Not applicable
Decomposition Temperature	>1450°C
Viscosity	No data available

Applications

Surface must be clean and dry, free of moisture surface. If from surface metal, use wire brush to remove rust and scale. It the polymer can be used as fireproofing and thermal insulation. Nano Shield can be used in projects and / or equipment that operate between the temperature range of 700°C continuously. However, a key benefit of this family is its use at temperatures above 1,000°C, where currently there are no commercial products that satisfy the conditions of performance, application and durability.

All products in the Nano Shield family are resistant to direct flame and radiated at temperatures above 1,400^{0}C. Within this family there are products that can be heated and cooled immediately using water without cracking.

Packing and Handling

Delivery Form

White or slightly beige aqueous dispersion

Packaging

Generally, the product is packed in plastic bucket containers with 18Kg of product but can be packed in different at client's request.

People

Nontoxic and non-flammable making safe around humans in closed enclosures

Planet

High material efficiency and minimized waste in production through recycling of raw materials

Performance

Joint developments with customers on formulations.

Consistent high-quality production.

Safety

For regulatory such as the classification and labeling as dangerous substances of goods please refer to our corresponding Material Safety Data Sheet.

Contact Us

info@thenanoshield.com