

STEEL SHIELD 1100

High Solids Glass Flake Polyester

PRODUCT DESCRIPTION

A high build polyester coating reinforced with glass flakes.

- Excellent resistance to erosion and abrasion.
- Excellent resistance to sea water immersion.
- Very good weather resistance.
- Reinforcement with glass flake drastically reduces the rate of transmission of corrosive ions

DESIGNED USE

Particularly suitable for areas which require a coating of exceptional durability and abrasion resistance, such as helidecks, bulbous bows, anchor chain areas, stem frames etc

PHYSICAL DATA

VOLUME SOLIDS (based on ASTM D2697)	98% $\pm$ 2%
TYPICAL DRY FILM THICKNESS	750 microns
WET FILM THICKNESS	765 microns
THEORETICAL COVERAGE	1.31m ² /litre @ 750 microns DFT.
COLOUR	White and limited range of colors
FINISH	Semi Gloss

APPLICATION DETAILS

AIRLESS SPRAY	This is a suitable method of application: Use large bore or Golden gun Tip Size: 1.14 - 1.30 mm (0.045 - 0.050 in) Pressure: 170 - 200 kg/cm ² (2500 - 3000 psi)
BRUSH OR ROLLER	This is also suitable method. Do not apply thick or heavy coats otherwise wrinkling, running or sagging may occur. Additional coats may be required to achieve the recommended film thickness. (Thinner 5% Max)..
CONVENTIONAL SPRAY	This is the recommended method of application: Tip Size: 1.8 mm - 2.2 mm (0.071 - 0.087 mm) Pressure: 40 - 50 psi (2.75 - 3.4) Kg/Cm ² Thinner - 20% max

Steel shield 1100 is a three pack glass flake polyester coating. The best performance is achieved at correct method of application. See Surface preparation to find application considerations.

DRYING TIME:

Surface Temperature	Hard Dry	Recoating Interval		Pot Life
		Minimum	Maximum	
15°C	3 Hr	24 Hrs	Indefinite	2 Hrs
25°C	2 hr	16 Hrs	Indefinite	1 Hrs
35°C	1.5 hr	10 Hrs	Indefinite	40 min
45°C	40 min	8 Hrs	Indefinite	25 min

NO. OF COMPONENTS	Three
Mixing Ratio	Base 20 Litre, Accelerator 35 gm, Catalyst 350 gm
Application Conditions	Do not apply this product if the Relative Humidity exceeds 85% or if the substrate temperature is within 3°C of the dew point

ADDITIONAL INFORMATION

Thinner / Cleaning solvent	Solvalux 7-77
Storage Instruction	Store in a cool shaded dry area
Flash Point	Mixed 29°C
Packaging	5 litres & 20 litres
Shelf Life	6 months from the date of Manufacture

SURFACE PREPARATION

- Steel must be blasted to a minimum cleanliness of Sa2½ Swedish Standard
- 05 59 00 or Second Quality BS 4232:1967. For highly corrosive conditions specify Sa 3.0/ First Quality.
- A surface profile of 125 microns must be available for direct one coat application.
- Abrasive of sizes S240, G24 or large are recommended to required profile.
- If the required profile is not available then a holding primer, Epilux 610 can be applied at 25 micron.

If the correct equipment is employed, 'Steelshield 1100' can be applied at high application rates. It is a simple material to apply if the recommended procedure is followed :

- Assemble full equipment and flush thorough with Washing Thinner.
- Remove gun and circulate Steelshield 1100 bone through lines.
- Attach gun and check the spray pattern is satisfactory by adjustment of pressure.
- Remove gun.
- Prepare material for use as follows :
- Thoroughly stir Accelerator into Steelshield Base. When fully dispersed, add Catalyst B. Because of the relatively small volumes of these it is essential to ensure complete mixing. This can only be achieved by using a mechanical stirrer and by scraping the sides. Remembers to flush uncatalysed material from the line and mix this thoroughly.
- Do not mix together the accelerator and catalysts as this may result in explosive hazards. Do not add Thinners.
- Re-attach gun and trigger to remove uncatalysed material from gun. The equipment is now ready for use.

Cleaning

- First cut off the air pressure at the pump and open the relieve valve to release the pressure on the fluid line and gun.
- Flush out the pump line and gun with thinner and allow this to circulate for a few minutes.
- Do not attempt to thin the product Steelshield 1100. DO NOT use Acetone for cleaning. Use Solvalux 7-223 or Methyl Ethyl Ketone.
- Should spills occur, soak up with vermiculite, perlite or similar absorbent material and destroy by careful burning in an open area. Caution - Combustible! In case of fire use carbon dioxide or dry chemical extinguishers. These materials must not be allowed to remain in prolonged contact with the skin, and inhalation of vapours should be avoided.
- In case of contact with the skin, wash with plenty of soap and water. In case of contact with eyes flush with fresh water and seek medical advice. If swallowed, induce vomiting and seek immediate medical attention.

Equipment details

1. The Graco King 45-1 Ratio airless spray or Wagner 66-1 unit is preferred because of its large volume lower unit, which enables maximum delivery of paint with min pump movement, thus minimizing heat generation. Teflon seals should be used in upper and lower section of the unit, as these will give a longer life then either neoprene or leather seals when large applications have to be made.
2. There should be no filters or strainers in the pump unit, the fluid lines or the gun, nor should there be diffusers in the tip, and no foot extension should be used on the pump. This will enhance free flow of the paint to prevent packing of the glass extenders which can cause blockages leading to premature curing in the body of the apparatus.
3. The fluid hose should be of 3/8" internal diameter and the shortest length suitable for practical application should be used. No restrictive couplings should be used on the fluid hose; the gun should be hooked up directly to the line. A swivel hook-up is an advantage and will give easy maneuverability of the gun when spraying.
4. The preferred spray gun is the Graco Hydro Mastic gun, without diffuser (Model 207- 300 series F). This should be used in conjunction with a Reverse-a-Clean head with a 45-51 thou tip, again without strainers, or diffusers.