



# BERGER PRODUCT SPECIFICATIONS

## STEELSHIELD 1100

High Solids Glass Flake Polyester

**PRODUCT DESCRIPTION**  
A two-component glass flake reinforced polyester coating that provides a high degree of barrier protection and abrasion resistance.

**DESIGN FEATURES**  
A high performance, heavy-duty anti-corrosive coating for use in aggressive environments such as offshore structures, petrochemical plants, power plants etc.  
Recommended in robust applications where high strength and high toughness is required.  
Outstanding hardness, abrasion and impact resistance.  
Excellent anti-corrosive performance.  
Good chemical resistance.  
Good durability and weathering properties.  
Fast curing and high build coating.

**PHYSICAL CHARACTERISTICS**

	Recommended Application Data			
	Theoretical Coverage	Wet [ $\mu\text{m}$ ]	Dry [ $\mu\text{m}$ ]	$\text{m}^2/\text{l}$
		500	500	2.0
Volume solids	100 %.			
Dry Film Thickness Range	500 $\mu\text{m}$ to 1000 $\mu\text{m}$			
Flash Point	31 °C			
Finish	Low Sheen			
Colour Range	Limited Colours			
Standard Packing Size	20 litres set ( 19.6 litres Base : 0.4 litres Catalyst )			
Mix Ratio ( by volume )	98 Base : 2 Catalyst			

**APPLICATION METHOD**

<b>AIRLESS SPRAY</b>	<b>Remove all strainers</b>
Recommended method of application	Tip Size : 1.14 – 1.30 mm (45 – 50 thou) Pressure : 206 - 241 kg/cm <sup>2</sup> (3000 - 3500 psi)
<b>BRUSH OR ROLLER</b>	May be used for difficult shapes or touch-up; however, additional coats may be required to achieve the recommended film thickness. These application methods are recommended for stripe coating welds, edges, rivets, etc.

**DRYING & CURING TIME**

Substrate Temperature	Touch Dry	Hard Dry	Overcoating Interval		Pot Life
			Minimum	Maximum	
15 °C	6 hours	12 hours	12 hours	5 days	90 minutes
25 °C	4 hours	8 hours	8 hours	3 days	1 hour
35 °C	2 hours	4 hours	4 hours	2 days	45 minutes

**USEFUL INFORMATION**

THINNER	: Not recommended
CLEANER	: SOLVALUX 7-77
STORAGE	: Store in a cool dry shaded area. Below 27°C.
SHELF LIFE AT 25 °C	: 6 months minimum when stored as prescribed in the MSDS.



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## SURFACE PREPARATION

The service life span and the service performance of STEELSHIELD 1100 are directly related to the degree of surface preparation.

### STEEL

- Steel must be blasted to a minimum cleanliness of Sa 2½ (ISO 8501-1:1988) or SSPC-SP10. For optimum / best performance and for highly corrosive conditions, blasting to Sa 3.0 / First Quality or SSPC-SP5 is recommended. A surface profile of 75 – 125 microns is required. To achieve the required profile, abrasive of sizes S240, G24 or larger are recommended.
- After blasting, remove dust from the surface and the surface should be clean.
- Apply Steelshield 1100 immediately after blasting to avoid oxidation and recontamination of the blasted steel surface. In case of oxidation or recontamination, re-blast to the required standard.

To avoid condensation of moisture onto substrate prior to coating application, relative humidity should not exceed 85% and substrate temperature should be more than 3°C above Dew Point.

## SUITABLE PRIMERS

Steelshield 1100 should be applied directly on the blast clean surface.  
For small areas where blasting is not possible, clean the surface with machine tools and apply Epimastic 3000 HS.

## NOTES

- This product contains highly volatile styrene. During and immediately after application some styrene loss is inevitable. The amount of styrene loss depends on temperature. Thus the actual volume solids and dry film thickness attained may vary slightly from the calculated figures based on the recommended guideline of 85% volume solids given.
- As this is a highly reactive product, mix the catalyst with the base only when ready to apply. Once application is complete, flush equipment immediately.
- Application at very low temperatures and / or high humidity may result in incomplete cure and surface tackiness.

## SAFETY PRECAUTION

### Base

Keep away from heat and open flame. Store in cool place below 27°C.

This product contains styrene. Avoid prolonged contact with skin and breathing vapour or spray mist. Wear suitable protective clothing such as respirator, overalls, goggles and gloves. Use barrier cream. Do not use in poorly ventilated areas especially in confined tank interiors.

This product is flammable. Keep away from sources of ignition. Do not smoke.

Take precautionary measures against static discharge.

In case of fire, blanket flames with carbon dioxide or dry chemicals extinguisher.

In enclosed environment, use air supplied hood respirators for long periods of application.

A full piece canister mask approved for styrene is adequate for 30 minutes maximum exposure limit.

### Catalyst

**WARNING!** This is a highly reactive organic peroxide catalyst and must be kept away from all sources of oxidisable materials, heat and ignition. Store in original container below 27°C.

## FIRST AID

**Eyes** : In the event of accidental splashes, flush eyes with warm water immediately and seek medical advice.

**Skin** : Wash skin thoroughly with soap and water or approved industrial cleaner. Do Not Use solvents or thinners.

**Inhalation** : Remove to fresh air, loosen collar and keep patient rested.

**Ingestion** : In case of accidental ingestion, DO NOT INDUCE VOMITING. Obtain immediate medical attention.

For further safety information, please refer to our **Material Safety Data Sheet (MSDS)**

## DISCLAIMER

*The information provided on this data sheet is not intended to be complete and is provided as general advice only. It is the responsibility of the user to ensure that the product is suitable for the purpose for which he wishes to use it. As we have no control over the treatment of the product, the standard of surface preparation of the substrate, or other factors affecting the use of this product, we are not responsible for its performance nor would we accept any liability whatsoever or howsoever arising from the use of this product unless specifically agreed to in writing by us. The information contained in this data sheet may be modified by us from time to time, and without notice, in the light of our experience and continuous product development.*