BUILDING TRUST

PRODUCT DATA SHEET

Inertol® Poxitar®

Heavy duty, coal tar based epoxy protective coating for steel and concrete

DESCRIPTION

Inertol® Poxitar® is a two part reaction hardening, chemical resistant coating of low solvent content based on coal tar epoxy resin, in combination with mineral fillers.

USES

Inertol® Poxitar® is used as a protective chemical resistant coating for concrete and steel, as internal and external coating for buried and submerged structures in wastewater, seawater or highly aggressive soils such as:

- Sewage, effluent or waste treatment plants
- Immersed piers
- Steel and concrete silos
- Ship hulls, pipelines, cooling towers
- Oil catchment tanks, pipes and piles of off-shore platforms
- Structures immersed in fresh and salt water
- Chemical storages
- Steel protection, exterior of buried metal pipes
- Marine structures

Inertol® Poxitar® is **not suitable** for surfaces in contact with drinking water.

CHARACTERISTICS / ADVANTAGES

- Tough hard, heavy duty
- Abrasion and impact resistant
- Excellent resistance to water and chemicals
- Resistant to microbes

PRODUCT INFORMATION

Chemical base	Epoxy resin modified with coal tar	
Packaging	Part A+B pre-batched	5.0 kg
	Part A	0.8 kg container
	Part B	4.2 kg container
Shelf life	12 months from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C.	

Appearance / Colour	Part A+B	Black liquid
	Part A	Light yellow liquid
	Part B	Black liquid

Density	~1.65 kg/L (+27 °C)	(EN ISO 2811-1)
Flash point	+33 °C	
Solid content by weight	~77 %	

TECHNICAL INFORMATION

Tensile adhesion strength	≥ 1.5 N/mm²	(EN 1542)
Heat resistance	+60 °C	

Chemical resistance

Test medium	Temp.	24 h	3 d	7 d	90 d
Sea water (5% NaCl in aqueous solution)	30 °C	A	A	A	A
Water	30 °C	A	A	A	A
Nitric acid 10%	30 °C	A	A	A	D
Hydrochloric acid 10%	30 °C	A	A	A	D
Sulphuric acid 10%	30 °C	A	A	A	D
Diesel	30 °C	A	A	A	A

*acc. IS 4631-1968
A = resistant, D = resistant with discolouration and/or loss of gloss, C = not resistant

SYSTEM INFORMATION

System structure

Concrete:

Layer	Product
Primer	1 × Inertol® Poxitar® + 5 % Sika® Thinner DS
Seal coat	1–2 × Inertol® Poxitar®

Steel:

Layer	Product
Primer	1 × Friazinc R (recommended for heavy mechanical exposure area)
Seal coat	1–2 × Inertol® Poxitar®

Dry film thickness	~70 microns per coat

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 16 : 84 (by weight)

Consumption

Concrete:

Layer	Product	Consumption
Primer	1 × Inertol® Poxitar® + 5 % Sika® Thinner DS	~0.15–0.20 kg/m²
Seal coat	1–2 × Inertol® Poxitar®	~0.20–0.30 kg/m² per coat

Steel:

Layer	Product	Consumption
Primer	1 × Friazinc R (recommended for heavy mechanical exposure area)	~0.15–0.20 kg/m²
Seal coat	1–2 × Inertol® Poxitar®	~0.15–0.20 kg/m² per coat

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile ,variations in level and wastage etc.

Ambient air temperature	+10 °C min. / +30 °C max.
Relative air humidity	75 % max.
Dew point	Beware of condensation. The substrate must be at least +3 °C above the Dew Point to reduce the risk of condensation, which may lead to adhesion failure of final finish. Be aware that the substrate temperature may be lower than the ambient temperature.
Substrate temperature	+10 °C min. / +30 °C max.
Substrate moisture content	< 4 % Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).
Pot life	~2 hours (5 kg, +30 °C)
Curing time	~7 days at +30 °C Note: Times are approximate and will be affected by changing ambient conditions.

Waiting time / Overcoating

Substrate temperature	Minimum	Maximum
+10 °C	16 hours	7 days
+20 °C	8 hours	7 days
+30 °C	4 hours	7 days

Note: The waiting times between applications depend largely on temperature and weather. Lower temperature will increase the minimum and the maximum time specified. To ensure good intercoat adhesion, light grinding of the previous coat followed by a thorough de-dusting is required.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Do not apply Inertol® Poxitar® on substrates with rising moisture.
- Freshly applied must be protected from damp, condensation and water for at least 24 hours.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

IMPORTANT

Inertol® Poxitar® is not recommended to apply in confined area without proper ventilation & safety equipment. If any customer wants to apply this coating under this type of environment, then customer has to get the clearance from own health and safety department. Applicator has to wear proper safety uniform and must use oxygen cylinder with proper breathing attachment before entering into that area. Avoid staying for longer time during application, must take rest at interval. Whole application has to be done under EHS officer supervision.

APPLICATION INSTRUCTIONS

EQUIPMENT

Inertol® Poxitar® must be thoroughly mixed using a low speed electric stirrer (300–400 rpm) or other suitable equipment.

SUBSTRATE QUALITY

Concrete

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. If in doubt apply a test area first.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

Steel

- Steel surfaces must be dry, free from oil, grease and dirt, rust and other contaminants that may inhibit bonding properties.

SUBSTRATE PREPARATION

Concrete surfaces

- Concrete substrates must be prepared mechanically using grinding, wire-brushing, abrading, scarifying or preferably by high pressure water/sand blasting equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes, cavities, pinholes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. High spots can be removed by grinding.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Steel surfaces

- For steel substrate sand blasting or wire brushing is essential.
- For immersion service, sandblast cleaning is required to remove all surface contaminants (paint rust, mill scale, etc) from at least 95 % of surface area of any section.
- For non-immersion service, a commercial blast cleaning is required to remove almost all rust, mill scale and foreign matter (the remaining surface should be greyish in colour).
- Coating in all cases with prepared metals must proceed without delay and certainly within 4 hours of preparation.
- For heavy mechanical exposure, priming with Friazinc R is recommended (refer to the Product Data Sheet of the specified product).

MIXING

1. Stir Part B thoroughly to remix any settled part.
2. Add Part A and mix thoroughly with an electric stirrer for 3 minutes until a uniform mix has been achieved.

APPLICATION

1. Apply to concrete or steel surface using airless spray, conventional spray, brush and/or roller. A minimum of 2 coats must be applied.

- Brush application: With distemper brushes, round brushes or radiator brushes.
- Roller application: With short pile lamb skin roller

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C immediately after use. Hardened or cured material can only be mechanically removed.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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