INERTA 160

Epoxy coating

INERTA 160 is a two-pack epoxy paint almost free of solvent and based on liquid epoxy resin.

Use: On steel in Epoxy Coating Systems. Also suitable for concrete.

INERTA 160 has good adhesion to blast-cleaned steel and excellent abrasion resistance. Thus it is suitable to use at objects exposed to severe mechanical loads, including the effects of ice. For example, for the painting of water-immersed structures (pile foundations, sheet piling, quay walls), hydropower constructions (sluice gates, dam hatches and gratings), cooling water and inlet piping in power plants, industrial conveyors, dump wagons, etc.
INERTA 160 has good chemical resistance. The resistance to oils, greases and petrol products is good, even on immersion.
INERTA 160 can be used in nuclear power plants, since its resistance to radiation is good and the coating is easy to decontaminate.
INERTA 160 is to be applied by hot twin-feed airless spray, whereby a film thickness of 500 µm is achieved in a single operation.

TECHNICAL DATA

Recommended substrate	Steel
Binder	Epoxy
Solids	96 ±2% by volume
Total mass of solids	Approx. 1400 g/l
Volatile organic compound (VOC)	Approx. 40 g/l (DIRECTIVE 2010/75/EU) The VOC value provided is the average value for factory produced products, and consequently it will be subject to variations between individual products covered by this Technical Data Sheet.
Theoretical spreading rate	<table><tr><th>Dry film (µm)</th><th>Wet film (µm)</th><th>Theoretical spreading rate (m^2/l)</th></tr><tr><td>500</td><td>520</td><td>1.9</td></tr></table> As many of the paint's properties will change if too thick coats are applied, it is not recommended that the product is applied to a film thickness that is more than double of the thickest recommended film.
Practical spreading rate	The values depend on the application technique, surface conditions, overspray, etc.
Colours	TM-101 white, TM-102 black and TM-303 red. Other colours on demand. The Hardener is turquoise, so it will stand out in the Base if the components are not properly mixed. This has no essential effect on the colour of the paint.
Gloss (60°)	Gloss

Hardener	Comp. B: INERTA 160 HARDENER or INERTA 160-01 HARDENER (with a different solvent composition).
Mixing ratio (A:B)	2:1 parts by volume
Pot life, +23°C	20 min.
Storage	The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

DIRECTION FOR USE

Surface preparation	Remove from the surfaces any contaminants that might be detrimental to surface preparation and application. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows: STEEL SURFACES: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least coarse (reference comparator "G"). See standard ISO 8503-2 (G). Severely pitted steel can be stopped up with INERTA 160 FILL, which is applied by twin-feed airless spray and smoothed immediately with a steel trowel (width 20 - 30 cm). CONCRETE SURFACES: The concrete must be at least 4 weeks old, well-hardened and solid. The water content of the top layer must not exceed 4% by weight. Smooth down any spatter and irregularities on the surfaces by grinding. Brush away loose cement, sand and dust. Wash oily and greasy surfaces with detergent or solvent. Remove dense laitance if present by etching with RENSA ETCHING etching liquid or by grinding or blast-cleaning. Big cavities in the concrete are repaired with cement mortar immediately after the removal of moulds. Before INERTA 160 is applied, all holes are to be filled, and if necessary, the whole surface is stopped up with TEKNOPOX FILL. Alternatively, INERTA 160 FILL can be used. OLD PAINTED SURFACES SUITABLE FOR OVERCOATING: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

	The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment. Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2. All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 meter and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).
Application method	Hot twin feed-spraying
Application	The components must be mixed and stirred thoroughly. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties. With diluted paint the dry film thickness 500 µm is achieved by applying two coats with 300 µm wet film thickness each. The second coat is applied as soon as the previous coat is set. INERTA 160 is applied by hot twin-feed spray, e.g. Graco Hydra-Cat. Suitable nozzle size (turn-nozzle) 0.021 - 0.026". The components must be kept at a temperature of +20 - +25°C before use so that they are fluid enough for the feed pumps. The ratio of the dosage pump must be 2 : 1. The heating of the components shall be adjusted so that the temperature in the gun is +40 - +50°C. The pot life of the mixture is then 5 min. If necessary, the hoses must be heated. The film thickness is controlled by a wet film gauge. The feed pump pressure and the consumption of components is to be checked to ensure of the correct mixing ratio. The operation of the mixing tube is controlled by watching the colour of discharged paint. If the tube does not function correctly, stripes of a hardener are visible in the base. WARNING! The amount and the temperature of the mixture will affect the pot life. The spray equipment will be damaged if the paint is let to cure inside it. To fill the pores in concrete surfaces, a coat of 200 - 300 µm is first sprayed and smoothed by brush or rubber spatula over porous areas. Immediately thereafter another coat is applied to achieve the total coat thickness of 500 µm. Directions given by the manufacturer of the twin-feed spray are to be followed when working.

Application conditions	The surface to be treated has to be dry. During the application and drying period the temperature of the ambient air, the surface and the product shall be above +10 °C and the relative air humidity below 80%. Additionally, the temperature of the surface to be treated and the product must be at least +3 °C above the dew point of the ambient air.
Drying time	+23 °C / 50% RH
- dust free	4 h (ISO 9117-3:2010)
- touch dry	8 h (ISO 9117-5:2012)
- fully cured	7 d

Overcoatable

surface temperature	by itself	
	min.	max.*
+10 °C	8 h	12 h
+23 °C	4 h	8 h

* Maximum overcoating interval without roughening.

Increase in film thickness and rise in the relative humidity of the air in the drying space usually slow down the drying process.

Cleaning	TEKNOSOLV 9530

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet.

ADDITIONAL INFORMATION

Maintenance instructions	When used for touching up and maintenance of small areas, INERTA 160 can be thinned (7% by volume). The paint is to be applied with an efficient airless spray or with a brush. Mix the components immediately before use in the ratio of 2 parts Base to 1 part Hardener by volume. Stir the mixture thoroughly with a drilling machine. Add 7% by volume TEKNOSOLV 9506 to the mixture. The pot life of the mixture is then about 40 minutes (at +23 °C).

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