

Technical Data Sheet

Denso ST Epoxy Coating

- Description:** A high solids epoxy-based coating primer / topcoat which may be applied in high film thickness to steel, galvanized steel and concrete. This product is a part of a complete system.
- Composition:** A two-component system consisting of an epoxy-based resin blend and hardener impregnated with glass flakes.
- Characteristics:**
- good chemical resistance to mineral acids, alkalis, salts and solvents
 - good impact and abrasion resistance, good adhesion to steel and concrete
 - provides protection to concrete from chloride ingress
 - accommodates substrate vibration and movement, flexible in nature
 - high temperature resistance (up to 85°(l))
 - mixing ratio 4:1, A:B by volume
 - thoroughly mix components and allow to stand for 10 minutes prior to use
 - can be applied by brush, roller or airless spray
 - airless spray tip size 17-21 thou (0.43mm - 0.53mm)
 - thin with no more than 5% epoxy thinner (generally not required)
 - no filters in pump, handgun or in hose to be used
 - handling times @25°C: pot life - 60 minutes, touch dry/recoat - 3 hours
 - wet film thickness (WFT) per coat: 300 ± 100 µm
 - dry film thickness (DFT) per coat: 255 ± 85 µm
 - theoretical coverage rate: 3.75 ± 1.25 m²/L
 - cleaners/thinners: epoxy thinners
 - colours: black, white, grey, others by special arrangement
- Uses:** Steel where blast cleaning may not be possible, and where gloss retention is of minor importance. Protects structural steel, pipe externals, pipe racks, tanks, offshore platforms, lock gates, bridges, concrete and also galvanized surfaces. Can be used alone or with a final OFT coat of 40µm Denso Weatherseal Topcoat Acrylic to help guard against UV radiation and give aesthetic appeal. Provision of long-term corrosion protection, mechanical protection and weathering resistance as per the Denso Steel coat 400 & 700 systems.
- Surface Preparation & Application:** Prepare steel surfaces by mechanical means to the minimum standard 'ISO 8501 St2 thorough hand and power tool cleaning'. Coating performance is proportional to the degree of surface preparation. Abrasive blasting is recommended for more severe environments. Prepare concrete by removing laitance and other foreign matter surface contaminants. Diamond grinding or sweep blasting is the optimum surface preparation for coating adhesion. Surface temperature of substrates must be at least 10°C and 3°C above the dew point of the air, the relative humidity being measured in the vicinity of the

substrate. When used over pre-existing coatings the surface must be clean and dry. A patch test should be carried out for compatibility and adhesion. Use in well ventilated areas. Spray techniques should be used to achieve a nominal dry film thickness of 250µm.

Recoating should occur prior to full cure of the preceding coat. If full cure has been reached it is necessary to abrade the coating surface to provide a key for subsequent coats.

**Recommended
Temperatures:**

Application: + 10 to + 50 °C
Service: - 34 to + 80 °C
Peak: + 85 °C

Shelf Life:

2: 12 months when stored in original containers.

Storage:

+ 5 to + 35 °C. Store in a cool, dry area away from heat and direct sunlight.

Dimensions:

DENSOEPOXY04BA	4L Tin -Black -Part A
DENSOEPOXY04WA	4L Tin -White -Part A
DENSOEPOXY04GA	4L Tin -Grey-Part A
DENSOEPOXY20BA	20L Tin -Black -Part A
DENSOEPOXY20WA	20L Tin -White -Part A
DENSOEPOXY20GA	20L Tin -Grey -Part A
DENSOEPOXY04BB	4L Tin -Black -Part B
DENSOEPOXY04WB	4L Tin -White -Part B
DENSOEPOXY04GB	4L Tin -Grey-Part B
DENSOEPOXY20BB	20L Tin -Black -Part B
DENSOEPOXY20WB	20L Tin -White -Part B
DENSOEPOXY20GB	20L Tin -Grey -Part B

Physical Properties:

Test	Test Methods	Units	Value
Specific Gravity@ 15°C Base Activator Mixed	ASTM D1475		1.74
			0.96
		-	1.58
Solids Content	ISO 1515	%w/2	82 ± 2

Flash Point	ASTM D92	°c	35
Adhesion to steel	ASTM D4541	MPa	12.4
Holiday Detection (quality control)	ASTM G62	kV	≤ 2
Shore D Hardness, Type D2	ASTM D2240	Dura	85
Salt Spray Corrosion	ASTM B117	Hrs	> 1500
Water Fog Humidity@ 40 & 100%RH	ASTM D1735	hrs	> 1500
Handling Time - one coat @ 10° C	ISO 9117-3 (BS 3900)	Hrs	8
Drying Time - to recoat @ 23°C			4
@ 35°C		2.5	
Drying Time - full cure @ 10° C		days	14
@ 23°C			7
@ 35°C			3