

Resene Armourcote 512 epoxy enamel

Resene Armourcote 512 is a high build, gloss epoxy finish that protects concrete and metals against corrosion and chemical degradation. Fully cured film is hard and abrasion resistant.

Typical uses

- Concrete surfaces
- Galvanised steel
- General marine use
- Piping, pulp and paper plants
- Repaints
- Structural steel
- Tank exteriors
- Waste/water treatment plants

Physical properties

Vehicle type	Two component epoxy
Hardener	Cycloaliphatic amine
Pigmentation	Chemically resistant types
Induction time	10 minutes
Pot life	1-2 hours at 20°C
Mix ratio	1:1 (by volume)
Finish	Gloss
Colour	Near white, selected BS2660, BS5252 and Resene Total Colour System
Dry time (minimum)	Touch: 6-8 hours 20°C Light foot traffic: 24 hours at 20°C
Recoat time (minimum)	16 hours Maximum: 14 days
Primer required	Yes, dependent on substrate and service conditions
Theoretical coverage	7.2 sq. metres per litre (125 microns DFT) 4.5 sq. metres per litre (200 microns DFT)
Volume solids	90%
Recommended DFT	125-200 microns per coat
Usual no. of coats	1-2
Abrasion resistance	Excellent
Chemical resistance	Acids – excellent (dependent upon type and strength); alkalis – excellent
Heat resistance	Up to 150°C (dry continuous)
Solvent resistance	Excellent
Durability	Excellent
Thinning and clean up	Thin with Resene Thinner No.6 (spray application) or Resene Thinner No.11 (roller application) Clean up with Resene Thinner No.12
Pack size	4 and 20 litre composite

Performance

Performance and limitations

1. High build, abrasion resistant finish.
2. Resistant to solvents and a wide range of chemicals including dilute mineral acids.
3. Near white epoxy finish.
4. Suitable for use as a tanklining and immersion in fresh and saltwater.
5. Ultimate film properties will require two weeks cure time.

Limitations

1. This product will chalk when continuously exposed to sunlight. This chalking in no way impairs performance.
2. Not recommended for constant immersion in acids, alkalis or solvents (consult manufacturer for specific recommendations).
3. Do not apply over thermoplastic coatings.
4. Extended cured times are required before immersion service.
5. Cure rates are retarded at temperatures less than 10°C.

Armourcote 512 epoxy enamel

Surface preparation

The more severe the environment the coating system will be required to withstand, the greater the degree of surface preparation required.

Concrete

If oil or grease deposits are present degrease according to SSPC SP1 solvent cleaning. Leave new concrete to cure for a minimum of 28 days before painting. Concrete floors must be profiled by captive blasting, abrasive blasting, diamond grinding, or acid etching (see [Data Sheet D83](#)). Prepared surface must have a uniform surface texture resembling 180 grit sandpaper. If this is not achieved repeat profiling method until the required surface texture is achieved.

Concrete surfaces cured with curing compounds or contaminated with form oils must be completely cleaned by abrasive blasting or grinding. Acid etching is not acceptable as this procedure will not normally remove these compounds. After abrasive blasting, grinding or acid etching, fill holes, voids etc by application of Resene Epox-O-Bond Filler (see [Data Sheet D808](#)).

Galvanising, Zinalume

Remove oil or grease with Resene Roof Wash and Paint Cleaner (see [Data Sheet D88](#)) or Resene Emulsifiable Solvent Cleaner (see [Data Sheet D804](#)). Wash with copious amounts of freshwater. Allow to dry.

Repaints

Ensure all surfaces to be painted are dry and free from loose rust, dirt, dust, oil, grease and mould. When applying Resene Armourcote 512 over an existing coating system, a TEST PATCH IS RECOMMENDED to ensure compatibility.

Steel

Degrease according to SSPC SP1 solvent cleaning. Remove all weld spatter, grind weld seams and sharp edges. Abrasive blast clean to SSPC SP10 or better. Blast to achieve a 25-50 anchor profile and immediately apply recommended Resene Zincilate (see [Data Sheets RA20 and RA21](#)) or Resene Armourcote priming/basecoat system (see [Data Sheets RA22, RA23, RA24](#)). For continuous immersion in fresh or salt water dry abrasive blast to achieve a minimum SSPC SP5 (Sa 3).

Residues and dust from old paint systems containing lead or chromate may be dangerous to the health of the operator and the environment. Ensure approved procedures are put in place to safeguard against this.

Application

Mixing

Base and hardener are mixed in a 1:1 ratio (by volume). Stir contents of each container separately using an explosion-proof power mixer. Add total contents of hardener container to total contents of base. Mix thoroughly until uniformly blended and allow to stand for 10 minutes before applying.

Application

Short-nap solvent roller (thin as required with Resene Thinner No.11).

Airless spray - Standard airless equipment with a 30:1 or higher pump ratio and a 17 to 21 thou fluid tip is recommended. A small amount of thinner greatly reduces viscosity. Excessive thinning will cause running or sagging. If required judiciously thin with Resene Thinner No.6 to improve atomisation.

Apply a wet coat in even parallel passes overlapping each pass 50% to avoid holidays, pinholes and bare areas. Give special attention to welds, seams and sharp profiles. When applying Resene Armourcote 512 directly over inorganic zinc, zinc-rich primers or porous surfaces, apply a mist coat of thinned product to minimise bubbling. Small areas can be touched up by brush but the high level of thinning required for brush application reduces desirable high build properties.

Safety precautions

Consult Safety Data Sheet for this product prior to use. Users should ensure that they are familiar with all aspects concerning safe application of this product. IF IN DOUBT, DO NOT USE THIS PRODUCT.

*Please ensure the current Data Sheet is consulted prior to specification or application of Resene products.
If the surface you propose to coat is not referred to by this Data Sheet, please contact Resene for clarification.*