



a.b.e.[®] Construction Chemicals **abe.[®]cote 352**

EPOXY COAL TAR PAINT

DESCRIPTION

Two-component, solvent-borne, polyamide cured epoxy tar.

USES

Protective coating for steelwork, cementitious surfaces and timber.

ADVANTAGES

- High-quality epoxy tar for corrosion protection of most surfaces. Do not use on shutter boards.
- Use in tidal zone for protection of concrete and steel.
- Brown colour indicator where multi-coat system required.
- Economical.

SURFACE PREPARATION

Any surface must be clean, mechanically sound and dry. For porous surfaces, electronic moisture content tests must be conducted prior to application of the priming system. Maximum moisture 4-5% max. (eg Protimeter Survey Master or equivalent)

or

Dynamic Calcium Chloride moisture "weight gain" over 24 hours

or

(a practical overnight "plastic sheet test" is also advisable approx. 1m² masked down on surface)

Steel – Surfaces must be free of all rust and millscale. They should be abrasive blasted to a minimum standard of Sa 2,5 of Swedish Code of Practice SIS 055900. If immersion service is contemplated then a standard of Sa 3 should be attained. Anchor pattern must never exceed 100 µm and preferably should be in the 50 – 75 µm range.

Galvanised Steel – Galvanised steel must be completely free of any trace of greasy matter and should be scrubbed with abrasive pad or proprietary abrasive cleaner until completely 'non-greasy'. The cleaned surface must be well washed with clean water and allowed to dry.

Concrete – Concrete must be free of laitance, curing membranes and shutter release oil. All blow-holes, omegas and other similar defects must be opened up and the best method of preparation is a light abrasive blast. If a smooth surface is desired, any major surface blemishes should be patched and smoothed with **epidermix 315**, with overcoating following within 48 hours.

Timber – Timber must be clean and should be reasonably smooth. All debris from preparation must be removed before any coating commences. Do not use on shutter boards as tar stains concrete.

PROPERTIES OF WET MATERIAL

Mixing ratio	2 base: 1 activator by volume
Density	1.17 g/cm ³
Colour:	
Base	Black
Activator	Greyish
Mixed material	Black
	A tin of aluminium paste is supplied to convert 5l black to a "brown colour indicator" in a multi-coat system.
	Do not use this "brown" colour as the final coat.
Finish	Gloss
Flash point	23°C
Dilution	With abe[®] thinners no 3 up to 10 % by volume
Consistency	Free flowing high viscosity liquid

PROPERTIES DURING APPLICATION	
Application by	Brush, short fibre roller or airless spray
Pot life	8 hrs/5L at 25°C
Induction period	Allow to stand for 20 minutes in shade after mixing
Volume solids (typical)	60%
Recommended average dft per coat	120 µm
Theoretical cover for above dft	5 m ² /L on smooth surface
Wet film thickness at above	200 µm
Maximum recommended WFT	250 µm
Practical cover for estimating purposes	3 – 4 m ² /L depending on surface texture
Recommended no. of coats	3 in chemical protection work
Dry time @ 25°C	Touch dry – 4 – 6 hrs Hard dry – 24 hrs Full cure – 7 days
Overcoating time @ 25°C	Min: 12 hrs Max: 48 hrs
Application temp. Range	10°C to 40°C
Fire resistance of wet film	Flammable
Equipment clean-up	abe® super brush cleaner
Do not apply	If humidity is in excess of 85 %
Do not apply	If surface is less than 2°C above dew point

PROPERTIES OF DRY FILM	
Maximum service temperature	Dry: 120°C Immersion: 60°C
Hardness	+ 2 000gm (sheen scratch test)
Impact resistance as per SABS method 146	3,35 joules
Flexibility on conical mandrel	No failure
Colours	Black gloss finish. For silver finish use abe.®cote 353 as a top coat over abe.®cote 352
Salt spray resistance as per SABS method 155	Passes 1 000 hours
Accelerated weather resistance as per SABS method 182	Passes 1 000 hours with no pin-holing cracking or alligating. Film will chalk on exposure to UV
Toxicity	Dried film is nontoxic but must not be used in contact with food or potable liquids
Water tainting	Will taint potable water
Distilled water resistance	Excellent
Water resistance	May be used for continuous water immersion*
Solvent resistance	Resists: hydrocarbon fuels, oils and aliphatic solvents
Chemical resistance	Resists: 40 % sodium hydroxide (caustic soda) 10% ammonium hydroxide, 10% hydrochloric acid 36% sulfuric acid bleach (domestic strength)

BONDING/PRIMING

It is recommended that **abe.®cote 352** be applied directly to the prepared substrate. It must NEVER be applied over conventional primers. If there is to be a delay in coating prepared steel, it is possible that solvent based metal etch primer may be used but advice of **a.b.e.®'s** Technical Department should always be sought.



a.b.e.® is an ISO 9001:2008 registered company
PO Box 5100, Boksburg North, 1461, South Africa
Website: www.abe.co.za | Tel: +27(0) 11 306 9000
Durban | Johannesburg | Cape Town | Port Elizabeth | East London | Bloemfontein | George

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MIXING

Stir the contents of each container very well. Add the activator to the base and stir together for at least five minutes using a flat paddle. Stir longer if the mix exceeds 5 litres volume. It has been found that mechanical mixing gives better dispersion than manual mixing. A suitable mixing method would be a slow speed electric drill (approximately 200 r/min) fitted with a paddle. If only part of a kit is to be used, add one volume of activator to two volumes of base. Measuring must be accurate and separate stirrers and containers used for proportioning each component. Thinning shall only be done with **abe® thinners No. 3**. Up to 10% may be added. The mixed material must be left to stand for 20 minutes in a cool place prior to application.

COVERAGE

Depending upon surface 3 – 4m²/L

Smooth surface – 5m²/L

APPLICATION

abe.®cote 352 should always be applied as a minimum 2-coat system and for most uses a 3-coat system is necessary. The first coat of a system may be thinned up to 10% with **abe® thinners No. 3**. Application should preferably be by brush. **abe.®cote 352** may be airless sprayed, normally through a 400 – 500 µm tip and up to 10% thinning is permissible. **abe.®cote 352** should not be applied if the ambient temperature is below 10°C. The curing reaction will not proceed at low temperature. If the surfaces are not at least 2°C above the dew point there is every chance that a film of condensed moisture may be present. This will adversely effect adhesion of the coating. Wet film thickness should not exceed the recommended figures as solvent entrapment could result. The same condition may be caused if overcoating times are shortened. Solvent entrapment in the film can lead to many problems. When work is carried out in full sun, and surface temperature may rise far above ambient, it will be found that the film will remain thermoplastic until full cross-linking of the coating has taken place. * While cross-linking of the coating is normally complete in seven days it is advisable to leave the coating as long as possible (up to 28 days) before putting it into full immersion service.

CLEANING

abe® super brush cleaner before dried/cure.

PROTECTION ON COMPLETION

Against traffic and spillage until cured. See "Application".

TEMPERATURE AND RELATIVE HUMIDITY

See "Application" and "Properties during application".

MODEL SPECIFICATION

Two component, solvent borne epoxy tar. The coating shall be **abe.®cote 352**, a two component solvent borne epoxy tar and applied in accordance with the manufacturers recommendations, **a.b.e.® Construction Chemicals**.

PACKAGING

abe.®cote 352 is supplied in 1L and 5L kits and 75L bulk kits.

HANDLING & STORAGE

This product has a shelf life of 6 months if kept in a dry cool place in the original packaging under cover. In more extreme conditions this period might be shortened.

HEALTH & SAFETY

Wet **abe.®cote 352** is toxic and flammable. Always ventilate the working area well during application and drying. Avoid flames in vicinity. Always wear gloves and eye protection when working with the material and avoid excessive inhalation and skin contact. If material is splashed in the eye, wash with copious quantities of clean water and seek medical attention. Cured **abe.®cote 352** is inert and harmless, but not in contact with food or drinkable liquids. When transporting liquids or semi liquids by aircraft, ask for material safety data sheet.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavors to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **a.b.e.® Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.



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