



a.b.e.<sup>®</sup> Construction Chemicals  
**abe.<sup>®</sup>cote SF 356**  
 Solvent Free

**EPOXY TAR COATING AND BINDER FOR EPOXY TAR PAVING/MORTAR**

**DESCRIPTION**

**abe.<sup>®</sup>cote SF 356** is a two-component, solvent-free amine-cured epoxy tar.

**USES**

High-build epoxy tar coating for chemical resistance – protection of asphalt road surfaces against oil attack. When mixed with aggregate can be used as a paving compound.

**ADVANTAGES**

- High chemical-resistant coating for concrete and steel.
- High-build for longer life.
- Ideal protection for asphalt surfaces.
- Versatile – used as binder for epoxy tar mortar.
- Good wear resistance.
- Easily applied.
- Economical.

**COLOUR**

Black finish.

| PROPERTIES OF WET MATERIAL |                               |
|----------------------------|-------------------------------|
| Mixing ratio               | 1 base: 1 activator by volume |
| Density (typical)          | 1,15 g/cm <sup>3</sup>        |
| <b>Colour:</b>             |                               |
| Base                       | Clear                         |
| Activator                  | Black                         |
| Mixed                      | Black                         |
| Finish                     | Gloss                         |
| Flash point                | +120°C                        |
| Consistency                | Viscous liquid                |

| PROPERTIES DURING APPLICATION           |  |
|---|--|
| Pot life                                | 20 min/ L @ 25°C   |
| Volume solids                           | 100%<br>Up to 5% tar volatiles present                           |
| Recommended av dft per coat             | Vertical 150µm<br>Horizontal unlimited                           |
| Theoretical cover for aboce dft         | 6 m <sup>2</sup> /L on smooth vertical surface                   |
| Practical cover for estimating purposes | 5 m <sup>2</sup> /L depending on surface texture                 |
| Drying time @ 25°C                      | Touch dry: 8 hrs<br>Hard dry: 24 hrs<br>Full cure: 7 days        |
| Overcoating time @ 25°C                 | Minimum: 8 hrs<br>Maximum: 24 hrs<br>Watch for presence of bloom |
| Application temp range                  | 10°C to 40°C   |
| Do NOT apply                            | If humidity is in excess of 85%                                  |
| Do NOT apply                            | If surface is less than 2°C above dew point                      |
| Fire resistance of wet film             | Flammable  |
| Equipment clean-up                      | <b>abe.<sup>®</sup> super brush cleaner</b>                      |
| Flexibility                             | Passes 8mm mandrel   |

| PROPERTIES OF DRY FILM   |                                    |
|--|------------------------------------|
| Maximum service temp   | Dry 90°C<br>Immersion 60°C         |
| Hardness   | +2 000 gms<br>(Sheen scratch test) |
| Impact resistance  | Passes 3,35 joules                 |
| Compressive strength when mixed with 3 vols of clean silica sand | + 50 MPa                           |

### CHEMICAL PROPERTIES OF DRY FILM

|                       |   |
|-----------------------|---|
| Salt spray resistance | Passes 1 000 hrs  |
| Weather resistance    | Will chalk on weathering exposure   |
| Toxicity              | Inert, but do NOT use with foodstuff or drinking water  |
| Water tainting        | Will taint potable water  |
| Chemical resistance   | The fully cured coating is resistant to: <ul style="list-style-type: none"> <li>• Distilled water</li> <li>• Saline water</li> <li>• Sewage sludge</li> <li>• Effluent water</li> <li>• Aliphatic solvents, vegetable and mineral oils and fuels</li> <li>• 35% sulphuric, 37% hydrochloric, 5% nitric, 10% acetic</li> <li>• Alkalis 40% sodium hydroxide, 10% ammonium hydroxide</li> </ul> |

### 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. (e.g. 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. 1m<sup>2</sup> 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 'nongreasy'. 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 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 201**, with overcoating following within 48 hours.

**Timber** – Timber must be free of any oily layers and should be reasonably smooth.

**Asphalt** – Surfaces to be new and free of contamination. Existing asphalt surfaces must be well scrubbed with **abe® super brush cleaner** and then washed with clean water to remove all residues. The asphalt must be completely dry before coating and on no account must diluted **abe.®cote SF 356** be used.

All debris of preparation must be removed before any coating commences.

### BONDING/PRIMING

Steel must be primed with **abe.®cote 384**.

Galvanised steel and zinc coatings – **abe.®cote SF 356** must never be applied directly to these surfaces – use **abe.®cote 386** as a barrier coat.

Concrete, masonry and timber must be primed with **abe.®cote SF 356** diluted.

1:1 with **abe® thinners no. 3**. This coat must be allowed to dry before overcoating proceeds.

Fresh concrete must be primed with **abe.®cote WD 337** and cured for 72 hours before overcoating.

Asphalt must be primed with undiluted **abe.®cote SF 356**.

### MIXING

#### **abe.®cote SF 356 coating**

Stir the contents of each container very well. Add the activator to base and stir together for at least 5 minutes using a flat paddle. If only part of a kit is to be used, add one volume activator to one volume base. Measuring must be accurate and separate stirrers and containers used for proportioning each component.

**abe.®cote SF 356** is designed as a solvent-free material. If it is being used on concrete, timber or masonry the first coat should be diluted with **abe® thinners no. 3**. Up to 50% may be added, producing a primer of 50% volume solids. This should be applied at about 6 m<sup>2</sup>/L.

#### **abe.®cote SF 356 Mortar**

Clean, dry, dust free silica sand may be mixed into **abe.®cote SF 356** to make a screeding mortar. It is normal to add three volumes of silica to one of mixed **abe.®cote SF 356**. This is mixed thoroughly in a rotating pan type mixer until the aggregate is fully coated.



## APPLICATION

### **abe.®cote SF 356 Coating**

**abe.®cote SF 356** should be applied by brush or short-fiber roller. When applying over asphalt a rubber squeegee may be used. To improve traction it is common practice to blend the still wet **abe.®cote SF 356** with dry, dust-free sand or fine chippings. Being an amine-cured system **abe.®cote SF 356** is prone to 'bloom' if drying occurs when humidity is high. This results in a haze forming on the surface of the coating, which is detrimental to good intercoat adhesion. If 'bloom' is present the surface must be wiped down with **abe.® thinners no. 3** before recoating. Semi-confined areas – although solvent-free, amine fumes require that breathing apparatus be used and that working areas be well ventilated.

### **abe.®cote SF 356 Mortar**

The usual thickness of this mortar is 5 mm and it must be laid on to a surface which has previously been primed with a diluted coat of **abe.®cote SF 356** as detailed under PRIMING of concrete and masonry above. Mortar yields:  
2l kit+13 kg sand yields approx. 6.9L  
5l kit+3x9.5 kg sand yields approx. 15.7L

## TEMPERATURE AND RELATIVE HUMIDITY

**abe.®cote SF 356** should not be applied if the ambient temperature is below 10°C. The curing reaction will not proceed at low temperatures. If surfaces are not at least 2°C above the dew point, a film of condensed moisture may be present. This will adversely effect adhesion of the coating. When work is carried out in full sun, the surface temperatures 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.

## CLEANING

**abe.® super brush cleaner** before dried/cured.

## PROTECTION ON COMPLETION

Protect surface against traffic and spillage until cured.

## MODEL SPECIFICATION

Two-component, solvent free, high chemical resistant amine cured epoxy coal tar system.

The coating/flooring will be **abe.®cote SF 356**, a two component, solvent free, high chemical resistant amine cured epoxy coal tar applied in accordance with **a.b.e.® Construction** including necessary primers and fillers where directed. Chemicals' recommendations.

## PACKAGING

**abe.®cote SF 356** is supplied in 2L, 5L and 50L yield metal containers.

## HANDLING & STORAGE

All **abe.®cote SF 356** related products have a shelf life of 24 months if kept in a dry, cool store in the original, unopened packs. If stored at high temperatures and/or high humidity conditions, the shelf life may be reduced.

## HEALTH & SAFETY

Uncured **abe.®cote SF 356** is toxic. Ensure working area is well ventilated during application and drying. Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, gloves, eye protection and respiratory protective equipment should be worn. The use of barrier creams provides additional skin protection. If contact with skin occurs, wash with water and soap. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought.

Cured **abe.®cote SF 356** is inert but must not be allowed to come in contact with foodstuff or drinking water. When transporting liquids and 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.



a.b.e.® is an ISO 9001:2008 registered company  
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