

## Epoxy Phenshield Topcoat

Solvent based phenolic epoxy topcoat

A two-component phenolic epoxy amine cured pigmented topcoat.

### Intended Uses:

A heavy-duty topcoat which sets to a hard, tough finish with very good abrasion resistance and a semi-gloss surface which is chemically resistant and easily cleaned. It has excellent resistance to a wide range of solvents and acid vapours. Used as a protective coating for steel and concrete surfaces in chemical processing plants, pulp, and paper mills and for the protection of structural steel against severe splash, spillage, and fume conditions.

### Properties:

- Excellent chemical resistance.
- Cures to a hard-resilient surface which is abrasion resistant.
- Glossy surface easy to clean.
- Suitable for damp, chemical environments such as pulp and paper mills.
- Two coats applied over Specialized Coating Systems Epoxy Phenshield Primer, provides excellent protection to surfaces exposed to chemical environments.

| Exposure | Splash & Spillage | Fumes     |
|----------|-------------------|-----------|
| Acids    | Very good         | Excellent |
| Alkalis  | Very good         | Excellent |
| Solvents | Excellent         | Excellent |
| Salt     | Excellent         | Excellent |
| Water    | Excellent         | Excellent |

### Technical Data:

|                        |                                                                |
|------------------------|----------------------------------------------------------------|
| Colour                 | Pastel colours                                                 |
| Finish                 | Matt                                                           |
| Mix Ratio (Volume)     | 4 : 1                                                          |
| Activator              | Epoxy Activator Phenshield Topcoat                             |
| Induction Period       | Not required                                                   |
| Density                | 1.7 Kg/ Litre (Mixed)                                          |
| Volume Solids          | 66% +/-2%                                                      |
| Typical Film Thickness | 100 – 300µm DFT (151µm WFT)                                    |
| Theoretical Coverage   | 6.6 m <sup>2</sup> / Litre @ 100µm DFT, allow for loss factors |
| Method of Application  | Brush, roller, or spray                                        |
| Flash Point            | 6°C                                                            |
| Temperature Resistance | Dry continuous – 150°C<br>Dry intermittent – 200°C             |
| Number of Coats        | 1 – 3 to achieve total DFT's.                                  |

## Drying Information:

| @ 100µm DFT                               | 0°C | 10°C    | 15°C    | 20°C    | 30°C    | 40°C   |
|-------------------------------------------|-----|---------|---------|---------|---------|--------|
| Touch Dry                                 | -   | -       | -       | -       | 2 hrs   | -      |
| Hard Dry                                  | -   | 36 hrs  | 32 hrs  | 24 hrs  | 16 hrs  | 12 hrs |
| Full Cure                                 | -   | 21 days | 14 days | 10 days | 7 days  | 5 days |
| <b>Overcoating Data – See Limitations</b> |     |         |         |         |         |        |
| Substrate Temp.                           | 0°C | 10°C    | 15°C    | 20°C    | 30°C    | 40°C   |
| Minimum                                   | -   | 36 hrs  | 32 hrs  | 24 hrs  | 16 hrs  | 12 hrs |
| Maximum                                   | -   | 28 days | 25 days | 21 days | 14 days | 7 days |

### Note:

\*See Specialized Coating Systems Definitions and Abbreviations.

## Surface Preparation:

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by freshwater rinsing. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

### Primer

Apply over Epoxy Phenshield Primer (Refer technical data sheet for application details).

### Abrasive Blast Cleaning

Epoxy Phenshield Topcoat may be applied directly on to steel surfaces:

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Epoxy Phenshield Primer, the surface should be re-blasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

### Concrete

Remove all dirt, oils, grease etc. and any loose material. All laitance should be removed by light abrasive blasting. Holes in concrete should be filled with an approved filler.

## Application:

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                       |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------|
| Mixing        | <p>Material is supplied in two containers as a kit. Always mix a complete kit in the quantities supplied. Once mixed the product should be used within the pot life specified.</p> <p>Stir the base component well with a flat-bottomed paddle or mechanical mixer until product is uniform. Continue stirring and add the entire contents of the activator container. Continue stirring until the mixture is homogeneous.</p> <p>Ensure that sufficient material be mixed so that the product can be applied within its use-able life. The temperature of the mixed product should preferably be above 15°C, otherwise extra solvent may be required to obtain application viscosity.</p> <p>Too much solvent will result in reduced sag resistance and slower cure.</p> |                                      |                       |
| Pot Life      | 2 hours at 25°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                       |
| Thinner       | SA65 Thinners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0 – 20% depending on application     |                       |
| Airless Spray | Tip range 15 – 21 Thou. Pressure at the tip should not be less than 150 bar (2200 PSI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                      |                       |
| Air Spray     | Recommended                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Gun                                  | Pressure/Gravity Feed |
|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Fluid Tip                            | 1.8mm to 2.2mm        |
| Brush/Roller  | Suitable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Typically, 50 – 70µm can be achieved |                       |

### Industrial & Protective: Acid & Chemical Resistant

|               |                                                                                                                                                                                                                                                                                                                   |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Stoppage | Thoroughly flush all equipment with <b>SA65 Thinners</b> . All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered, and viscosity re-adjusted before use. |
| Clean Up      | Clean all equipment immediately after use with <b>SA65 Thinners</b> . It is good working practice to periodically flush out the spray equipment during the course of the working day. Frequency of cleaning will depend upon the amount sprayed, temperature and elapsed time, including delays.                  |

### Environment:

|         | Surface Temperature | Ambient Temperature | Relative Humidity |
|---------|---------------------|---------------------|-------------------|
| Minimum | 10°C*               | 15°C                | No lower limit    |
| Maximum | 40°C                | 45°C                | 90%               |

\* Or 3°C above dew point. Adequate ventilation must be maintained during application and curing.

### Limitations:

- Colours will tend to chalk and discolour in direct sunlight.
- Due to rapid cross linking, if the recommended overcoating interval is exceeded, sanding of the surface is mandatory.
- Not recommended for immersion service or continuous spillage of hot or concentrated acids.
- Overcoating information is given for guidance only and is subject to local climate and environmental conditions. Consult a Specialized Coating Systems representative for specific recommendations.
- Test performance results were obtained in a controlled laboratory environment and Specialized Coating Systems makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating.

### Pack Size:

5 & 20 Litre.

### Storage:

- Shelf Life: 12 months at 25°C from date of manufacture. Subject to inspection thereafter.
- Store in dry conditions out of direct sunlight, away from sources of heat or ignition.
- Store at temperatures between 5°C and 35°C

### Precautions:

For complete safety and handling information please refer to the appropriate Safety Data Sheets prior to using this product.