

## Technical Data Sheet: CORROSOL VE GP

### Product Description

**Corrosol VE GP** is a single component UV cured glass reinforced sheet laminate that combines a unique blend of high grade vinyl ester, polyester, fillers and chopped strand glass.

The material has been developed to protect substrates from corrosion, chemical attack, impact and abrasion.

### Product Features

- Single component
- Ease of application
- High chemical resistance
- Excellent adhesion to a wide range of substrates
- High impact resistance
- High abrasion resistance

### Typical Application

- Field Joints
- Chemical storage tanks
- Oil storage tanks
- Bund walls
- Chemical containment areas
- Above and below ground pipelines
- Waste water areas
- Splash zones
- Pipe supports

### Technical Data

**Corrosol VE GP** is supplied in standard rolls 10 metre in length and 920 mm width. Prior to exposure to UV radiation the material is malleable and application friendly.

Once cured **Corrosol VE GP** will display the following typical properties:

Product Data	Typical Values	Test Method
Material Thickness	1.7 - 1.9 mm	
Tensile Strength	55 Mpa	BS 2782 - 1994
Coeff. of Thermal Expansion	2.9 10 <sup>-5</sup> °C	ASTM D696-03
Impact Resistance	>60 Kj/m <sup>2</sup>	BS EN ISO 180
Hardness	>60 Barcol	ASTM D2583-01
Compression Strength	>200 Mpa	ASTM D695-2002a
Adhesion to Steel	>14 Mpa	ASTM D4541-02
Adhesion to Concrete	2 Mpa cohesive concrete failure	
Fire Rating	Class 1	BS 476 PT 7:1997, ASTM E84
Flash Point	34°C	ASTM D93
Heat Resistance	wet: 90°C / Dry: 200°C	
Volume Weight	1.84 gms/cm <sup>3</sup>	
Flexural Strength	118MPa (17,110 psi)	ASTM D790
Heat Distortion Temperature	100°C	ASTM D648
Flexural Modulus	5.98 GPa	ASTM D2344

\* All test data has been obtained through independent test laboratories to exacting test standards. These are average readings and small tolerance must be made between product batches, application conditions and UV source.

### Chemical Resistance

For details on chemical resistance please refer to the Corrosol Chemical Resistance Chart.

### Substrate and Surface Preparation

#### General

Correct surface preparation is essential for the success of any protective laminate or coating systems. All surfaces should be clean, dry and free from contamination. The substrate surface should be fully inspected, assessed and surface prepared, before proceeding with application of **Corrosol VE GP**.

#### Steel Substrate

Prepare metal surfaces by grit blasting to Swedish Standard SA 2.5, with minimum 75 microns profile, grinding or deep scoring. Clean off blast medium and inspect the substrate carefully. Prior to application of the first coat of **Corrosol Primecoat**, wipe the substrate with clean acetone or similar solvent and observe vaporization. Ensure the surface is primed with **Corrosol Primecoat** as soon as practical. If there is evidence of flash rusting, then this needs to be removed prior to priming with **Corrosol Primecoat**.

#### Concrete

Concrete must be cured at least 28 days at 24°C (75°F). Prepare surfaces in accordance with ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing. Always check moisture content of concrete prior to application of **Corrosol Primecoat**.

## Application Precautions

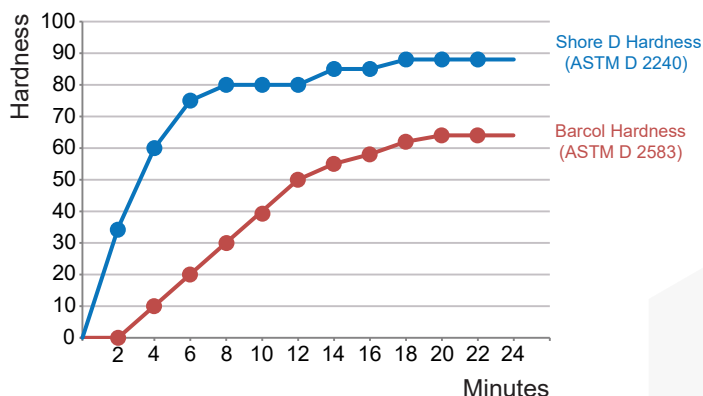
- Avoid exposure to direct sunlight during application
- Always apply material 3°C above dew point
- On porous surfaces a second coat of **Corrosol Primecoat** may be required
- When applying material onto hot substrates ensure it is exposed to UV light and allowed to cure immediately

## Directions for Application

- 1 Following surface preparation, inspect the surface and fill any deep pitted areas, and allow to cure, ensuring overcoat windows are adhered to.
- 2 Immediately cover the prepared substrate area with **Corrosol Primecoat** resin by either a cut down brush or roller. As the material is a single component UV cured resin there is no requirement to mix. Once applied, cure the 1st coat of **Corrosol Primecoat** resin by UV radiation (sunlight) or UV lamp as soon as possible, but within 12 hours.
- 3 **Corrosol VE GP** laminate can be cut to size and then contoured to fit any surface. Once cut to size apply one **Corrosol VE GP** sheet laminate wrap to primed surface. First start to remove the blue inner plastic film and apply the **Corrosol VE GP** to the substrate. Next take a small stiff roller and lightly roll this over the sheet laminate. Continue this process until you have removed all of the film and overlapped back onto itself by minimum 50 mm. Allow to cure leaving the outer clear plastic film onto the sheet until fully cured before removing.
- 4 Application of further layers of **Corrosol VE GP** can be done as above within a 36 hours period. After this it is necessary to lightly abraid and brush clean the material. Use acetone, or solvent approved by local authorities, to degrease and prepare the existing surface before applying **Corrosol Primecoat** and another layer of laminate.

## Curing Time

Curing properties: hardness development against UV exposure



The curing time will vary with the intensity of UV source and the prevailing conditions. To determine that **Corrosol VE GP** has cured sufficiently a simple hardness test is recommended using a handheld shore hardness durometer tester.

The durometer only provides accurate readings on a flat surface. It is recommended that for testing purposes a piece of laminate

is cut and cured flat under the same conditions as the actual application. This can be tested, labeled and kept with the application QA/QC documents as a record.

## Inspection

**Corrosol VE GP** can be inspected for pinholes and holidays using high voltage spark tester. Before use the material should be washed down with clear water to remove any contamination on the surface and allowed to dry. Typical voltage for testing should be 4kV. Please refer to the equipment manufacturers recommendations as voltages may vary with equipment type.

## Repair Existing Material

Repair of damaged areas can be achieved by means of patching a small piece of **Corrosol VE GP** over the position of the damaged area. The surface must be carefully prepared and lightly hand abraded and brushed clean. Use acetone, or solvent approved by local authorities, to degrease the surface ready for the **Corrosol VE GP**.

**Corrosol Primecoat** may first be applied to the repair area before placing the repair patch to aid application and sealing of the patch. The repair patch must overlap the damaged site by a minimum of 100 mm. The repair patch should be held in tension with transparent tape until fully cured.

## Technical Support

Corrotech Construction Chemicals offer complete technical support and assistance from discussing application requirements to training approved local contractors. For further information please contact a Corrosol representative or your nearest dealer.

## Health & Safety

Please refer to the product material safety data sheet for detailed information on handling, storage, shipping and disposal.

## Packaging and Storage

The material will have a minimum shelf life of **18 months** when stored below 26°C in a cool dry place and when kept in its original unopened packaging at the recommended storage conditions. Always store material in its original packaging in horizontal position, rotating boxes every 30 days by 180°. Protect material from sunlight or UV lamps at all times prior to installation.

## Warranty

Corrotech Construction Chemicals guarantees this product will meet the performance claims stated herein when material is stored and used as instructed. Corrotech Construction Chemicals further guarantees that all its products are carefully manufactured to ensure the highest quality possible and tested strictly in accordance with universally recognized standards (ASTM, ANSI, BS, DIN, etc.). Since Corrotech Construction Chemicals has no control over the use of the products described herein, no warranty for the application can be given.