

Chemdur Clear

Aliphatic Polyurethane UV Stable Coating

Description

Chemdur Clear is an aliphatic solvent-based UV stable polyurethane coating. The cured coating has excellent abrasion and chemical resistance and exhibits excellent weathering properties. The coating is particularly effective against **Skydrol** and has been used extensively in the aviation industry for hangar floors and walls.

Appearance

Available with a gloss, silk or matt finish.

Dry film thickness

Approximately 60 - 75 µm per coat.

Features & Benefits

Chemdur Clear coatings are ideal for a variety of different substrates such as concrete, render, brick, aluminium and steel. The coating is suited as a high performance finish in the following areas:

- Industrial & commercial floors and walls
- Chemical process industries
- Anti-graffiti (gloss versions)
- Protection in hostile environments
- Cementitious substrates

In some cases **Chemdur Clear** is self-priming but is generally used as a top coat over **Chemdur Undercoat**.

Chemdur Undercoat

Chemdur Undercoat is a high solids solvent-based two pack aliphatic coloured polyurethane coating with excellent opacity which dries to a flat matt finish. Application rate is approximately 3 - 4 m²/kg depending on substrate porosity and profile. Due to the thin-film nature of these coatings, a test area is recommended before commencing works to determine coverage rate. **See separate data sheet.**

Chemdur Clear Topcoat

Chemdur Clear Topcoat is a high solids solvent-based two pack aliphatic polyurethane coating available in a gloss, silk or matt finish. **Chemdur Clear** can be applied by brush, short-nap roller or spray.

Coverage

It is recommended that **Chemdur Clear** systems are applied in a minimum of three coats based on one coat of **Chemdur Undercoat** followed by two coats of **Chemdur Clear Topcoat**. Additional coats of undercoat or topcoat may be required depending on the nature of the substrate and the end use.

Coverage*

	m ² /kg
Chemdur Undercoat (75 - 100 µm)	3 - 4
Chemdur Clear Topcoat (Gloss)	5.5 - 7
Chemdur Clear Topcoat (Silk)	5 - 6.5
Chemdur Clear Topcoat (Matt)	4.5 - 6

*Coverage figures given are theoretical. Practical coverage rates may vary due to wastage factors and the type, condition, profile and porosity of the substrate. Prevailing site conditions will also affect the coverage. It is always advisable to put down a test panel of the system if the coverage rate is in doubt, especially on a large project to assess correctly the affect of substrate porosity and texture.

Application Conditions

The ideal ambient, substrate and material temperature range is 15 - 20 °C. Localised heating or cooling equipment may be required outside this range otherwise the surface finish may be impaired. The maximum substrate and atmospheric relative humidity should be 75%. The substrate and uncured floor must be kept at least 3 °C above the dew point to reduce the risk of condensation or blooming on the surface from before priming to at least 48 hours after application.

Surface Preparation

Cementitious Substrates

All substrates must be protected by an adequate and effective DPM. Inadequate preparation will lead to loss of adhesion and failure. In coatings, there is a tendency for the finish to mirror imperfections in the substrate. For concrete substrates, grinding or light vacuum contained shot-blasting is therefore preferred over planing for these systems. Refer to the **Virtus Guide to Surface Preparation**.

Steel Substrates

Steel surfaces should be prepared to SA 2 ½ standard and coated immediately to prevent flash rusting.

Plasterboards

Application to plasterboards requires min. one coat of Flowdur primer.

Virtus Resins

The Shippon, Faenol, Pentrecelyn, Ruthin,
LL15 2SP
Tel: +44 (0) 1978 790 744
info@epoxyresinsuppliers.co.uk
www.epoxyresinsuppliers.co.uk

Cure Schedule at 20 °C *

Working life of full packs	60 minutes
Over-coating time (minimum)	16 hours
Over-coating time (maximum)	36 hours
Light foot traffic	16 hours
Medium duty traffic	48 hours
Full Cure	7 days

If the maximum over-coating time is exceeded the coating should be mechanically abraded thoroughly and re-coated.

* The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions. Higher temperatures will shorten working time and lower temperatures will extend cure times.

Pack Size

2.5 kg & 5 kg

Colours Available

Chemdur Clear is available in a clear gloss or silk finish.

Application Instructions

Prior to mixing, the temperature both components should be between 15 and 20 °C. Add the hardener component to the coloured resin component and mix using a low speed electric mixer (300 - 400 rpm) for at least 3 minutes until homogeneous. Keep the mixing paddle fully submerged to avoid the entrapment of air and scrape the sides and bottom of the vessel several times. Distribute the mixture immediately onto the surface using solvent resistant short nap lint-free mohair roller. Plan the work area to ensure a constant wet edge and work within the working time of the material. It is imperative that film thickness is kept constant, especially with silk or matt coatings to maintain consistency of appearance. This should be regularly checked using a wet film thickness wheel. Ensure that material is not applied more than once or overlapped in any area and apply in one direction only. If the thickness of the applied material is uneven, the surface may have an uneven appearance due to differences in gloss. Avoid pooling as this will lead to solvent entrapment and uncured areas.

Do not apply subsequent coats until the previous coat is cured. This will depend on temperature, atmospheric humidity and degree of ventilation. Adequate ventilation and air movement is necessary.

If applying by spray, suitable respiratory protective equipment should be worn by all exposed persons.

Where specified, apply **Chemdur Undercoat evenly at the coverage rate determined by trials**. If, when cured, there are dry patches, a further coat may be required.

Cleaning

Regular cleaning is essential to enhance and maintain the life expectancy and appearance of the product. **Chemdur Clear** can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information. Silk and especially Matt coatings have a tendency to soil quicker than gloss coatings as the surface has a micro-texture.

Health and Safety

Refer to product Safety Data Sheet before use.

Limitations


Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >75% or if the surface temperature is <3 °C above the dew point. Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be < 7°C during the application or within the curing period. The manufacture of **Chemdur** is a batch process and despite close manufacturing tolerances, colour variation may occur between batches. Products from different batches should not be used on the same surface or surfaces close together. If mixed batches are unavoidable, it is best practice to use the different batches only in areas where the colour cannot be directly compared. Touching up should only be attempted using product from the same batch using the same application methods. Product should be reserved specially for this purpose. It is recommended that touching up is carried out up to a break in the floor or surface.

Technical Advice

For further information on this or any other Virtus product, please contact our office.

Note

The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties listed are for guidance purposes only. We reserve the right to make any changes according to technological progress or further developments.

Virtus Resins, The Shippon, Pentre-Celyn, Ruthin LL15 2SP, England			
	13	DOP RV0003/5/6	
EN 13813 SR-B2,0-AR0,5-IR20 Synthetic resin screed material for use internally in buildings not subject to reaction to fire regulations			
Reaction to fire	NPD	Impact resistance (Matt/Silk) IR8	
Release of corrosive substances	SR	Impact resistance (Gloss) IR7	
Water permeability	NPD	Sound insulation	NPD
Wear resistance	AR0,5	Sound absorption	NPD
Bond strength	B2,0	Thermal resistance	NPD
		Chemical resistance	NPD

Virtus Resins

The Shippon, Faenol, Pentrecelyn, Ruthin,
LL15 2SP
Tel: +44 (0) 1978 790 744
info@epoxyresinsuppliers.co.uk
www.epoxyresinsuppliers.co.uk



Chemdur Clear
Page 2 of 2