

## Description

Centrecoat ArmourCoat HF is a heavy duty, trowel applied polyurethane floor screed for use on concrete and polymer modified cementitious screeds. Centrecoat ArmourCoat HF is designed with the highest order of durability, impact, abrasion and chemical resistance. Its lightly textured finish makes the product ideal for both wet and dry processing environments such as the food, beverage and chemical industries.

Centrecoat ArmourCoat HF is water based and non-tainting (Campden & Chorleywood Food Research Association test method TES-S-002).

## Features

- ▶ Stable to steam cleaning and hot water exposure at a thickness of 9 mm
- ▶ Very high chemical resistance
- ▶ Non-tainting
- ▶ Seamless
- ▶ High abrasion resistance
- ▶ Slip resistant

## Colour & Appearance

Available in a range of standard colours. Centrecoat ArmourCoat HF is not colour fast and may yellow over time. The rate of change will depend on UV light and heat levels and cannot be predicted. This will be more pronounced with lighter colours and blue shades and does not compromise the product's performance or chemical resistance characteristics.

Seamless, matt surface with a light slip resistant texture. Centrecoat ArmourCoat HF contains a white aggregate which imparts a slip resistant profile to the finished floor. When first installed, the floor has a uniform coloured surface. However, with general use, the white aggregate will begin to show through giving a decorative, mottled appearance.

## Chemical Resistance

Centrecoat ArmourCoat HF is resistant to a wide range of commonly used chemicals in the food, dairy and pharmaceutical industries such as concentrated citric acid (fruits), spirit vinegar (50% acetic acid), lactic acid (food & dairy products) and common alcohols (methanol & ethanol). Centrecoat ArmourCoat HF is also resistant to a wide range of inorganic acids, fuels, hydraulic oils, mineral oils and solvents.

Good housekeeping practices should be employed. Please consult our Technical Department for further advice. Some staining or discolouration may occur with some chemicals, depending on dwell time, temperature, type of chemical and degree of housekeeping employed. This does not affect the product's service integrity or durability.

## Temperature Resistance

Centrecoat ArmourCoat HF is resistant to spillages and discharges up to 70°C when applied at 6 mm thickness. When applied at 9 mm Centrecoat ArmourCoat HF is resistant to spillages and discharges up to 120°C and is fully steam cleanable. Where thermal shock is an issue, a good quality substrate is essential.

## Application / Substrate Conditions

Ideal ambient and substrate temperature range is 15 - 25°C. Localised heating or cooling equipment may be required outside this range to achieve ideal temperature conditions. The aggregate can be stored in a cool area (or warm area in the case of low ambient temperature) in order to control product temperature and working life. 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.

## Preparation

Inadequate preparation will lead to loss of adhesion and failure. Grinding, light vacuum-contained shot-blasting or planing is recommended. Percussive scabbling or acid etching is not recommended. Anchorage grooves should be cut to a width and depth of twice the thickness of the floor finish at the edges, bay joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed. Contact our technical team for further information.

## Mixing

Prior to mixing, the temperature of the three components must be between 15 and 25°C. Pre-mix the coloured resin component before use. Add the hardener component to the coloured resin component and mix using a low speed electric mixer (300 - 400 rpm) for 1 - 2 minutes until homogeneous.

Decant the mixture into a rotary drum mixer and add the aggregate component in stages, mixing for a minimum of 3 minutes until a uniform coloured, lump-free mix is obtained. Apply to primed areas to the required thickness using a steel float. Ensure that anchor grooves are fully wetted out with material. The cured product should be protected from other trades using Kraft paper or similar breathable material. Polythene should not be used. Protect the installed floor from damp, condensation and water for at least 4 days.

## Application

### Priming

#### (i) Where the concrete substrate has a relative humidity of <75%

Priming should be carried out using [Centrecoat ArmourCoat Multi-Use Primer](#) taking particular care to prime but not fill the anchor grooves (see separate data sheet). Spread onto the substrate and roll with a short-haired roller to ensure even coverage until the surface is completely wetted out, taking care to avoid pooling. Apply around the edges of and into anchorage grooves by brush, to allow even spreading and avoid pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20°C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed. Failure to do so may result in pin-holing of the surface topping.

#### (ii) Where the concrete substrate has a relative humidity of >75%

Centrecoat ArmourCoat HF can be applied to 7 day old concrete which is visibly dry and having a minimum tensile strength (pull-off) of 1.5 MPa. All of the usual stringent surface preparation techniques should be employed. For concrete bases in contact with the ground, a damp proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of Practice for Protection of Buildings Against Water from the Ground).

**Centrecoat Armourcoat TF** should be applied as a primer coat. Apply using a medium nap roller directly from a paint tray or scuttle. Push the coating well into the surface, make sure it is fully wetted out then pull back to a tight coat with the roller. Apply around the edges of and into anchorage grooves by brush, to allow even spreading and avoid pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20°C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed. Failure to do so may result in pin-holing of the surface topping.

## Test Results

- ▶ BS 8204-6: Type 8 (28 days at 20°C)
- ▶ Water absorption (CP-BM-2/67-2): 0 Litre per m<sup>2</sup>
- ▶ Adhesive strength to concrete (BS EN 1504-2): > 1.5 MPa
- ▶ Slip resistance (Pendulum Test Value BS 7976-2): ≥ 55 dry / ≥ 40 wet

The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary dependent upon site conditions. The slip resistance figures given

above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants. Good housekeeping practices should be observed.

## Technical Data

- ▶ Thickness: 6 - 9mm
- ▶ Pot Life: 15 minutes at 20°C
- ▶ Light Traffic Ready: 12 hours at 20°C
- ▶ Light Wheeled Traffic Ready: 24 hours at 20°C
- ▶ Heavy Duty Traffic Ready: 48 hours at 20°C
- ▶ Fully Cured Chemical Resistance: 7 days at 20°C

The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions.

## Coverage Rate

Theoretical Coverage: 12 Kg per m<sup>2</sup> at 6mm or 18 Kg per m<sup>2</sup> at 9mm.

## Maintenance

Regular cleaning is essential to enhance and maintain the life expectancy, slip resistance and appearance of the floor. Centrecoat ArmourCoat HF can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information. When applied at 9 mm thickness, Centrecoat ArmourCoat HF is fully steam cleanable.

## Storage

Store off the ground in unopened packs in a dry store, under cover between 10°C and 30°C out of direct sunlight. Protect from frost.

## Shelf Life

Resin and hardener components 12 months, aggregate component 6 months if stored in accordance with the above recommendations.

## Packaging

Available in 29.64 Kg

## Limitations

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >90% 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 <5°C during the application or within the curing period. The design strength of concrete surfaces must be a minimum of 25 MPa compressive strength at 28 days.

The manufacture of Centrecoat ArmourCoat HF 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.

For further information, please contact our technical team.