

APCOFLOR HSC3 SCREED

FLOORING COMPOUND

Three-component, epoxy resin floor screed for heavy duty use.

PRODUCT DESCRIPTION

Apcoflor HSC 3 is a robust, three-component, epoxy resin-based floor screed formulated for demanding environments. It delivers a high-strength, heavy-duty flooring solution with exceptional resistance to mechanical wear, abrasion, and high impact. Furthermore, it provides a broad spectrum of chemical resistance and exhibits reliable nonskid properties, making it ideal for industrial and heavy-use areas requiring durability and safety.

KEY FEATURES

- **High Wear Resistance:** Provides excellent resistance to mechanical abrasion, ensuring long-lasting performance in heavy-duty environments.
- **Broad Chemical Durability:** Offers strong resistance to a wide range of chemicals, making it suitable for industrial applications.
- **Superior Non-Skid Surface:** Delivers reliable anti-slip properties, enhancing safety in wet, oily, or high-traffic areas.
- **Versatile Application Use:** Compatible for coving work and can be top-coated with epoxy for enhanced protection.

PRODUCT BENEFITS



Wear Resistant



Chemical Safe



Non-Skid Surface



Versatile Use

PACKAGING

20kg (17 kg Aggregates, 2kg Base & 1kg Hardener)

TECHNICAL PROPERTIES

Properties	Value
Finish	Matt
Theoretical coverage	0.15 m ² /kg @ 3 mm DFT 0.09 m ² /kg @ 5 mm DFT
Volume solids (ASTM D2697)	100%
Typical dry film thickness	3-5mm
Typical wet film thickness	3-5mm
Compressive strength (ASTM C 579)	94.3 N/mm ²
Flexural strength (ASTM C 50)	21.0 N/mm ²
Tensile strength (ASTM C 30)	16.5 N/mm ²
Rapid chloride permeability (ASTM C 1202.97)	96%
Chemical resistance	No changes were observed
Hot water resistance (ASTM D 570 @ 70°C)	No changes were observed
Abrasion resistance (ASTM D 4060:01)	Avg. weight loss of 1000 cycles (mg) – 54.3 mg
Thinner/ cleaning solvent	Solvalux 7-45
Flash point	> 28°C

Drying Time

Ambient Temperature	Touch Dry	Hard Dry	Full Cure	Pot Life
25°C	8 Hrs	24 Hrs	10 Days	45 min
35°C	4 Hrs	16 Hrs	7 Days	30 min
45°C	2 Hrs	14 Hrs	5 Days	20 min

APPLICATION AREAS

- Ideal for heavy-duty ramps, industrial floors, and multi-level vehicle parking zones.
- Suitable for loading and unloading bays subjected to continuous heavy-vehicle movement.
- Recommended for high-abrasion flooring in engineering and manufacturing plants.
- Used in workshops, dairies, breweries, and food-processing facilities requiring durable, non-skid surfaces.
- Effective for automotive and chemical plants where strong mechanical and chemical resistance is essential.

APPLICATION METHOD

1. Surface Preparation:

- **Substrate Condition:** Ensure the concrete substrate is sound, clean, and dry for maximum coating adhesion. New concrete must be a minimum of 28 days old, free from curing agents, and have a moisture content of less than 5%.
- **Mechanical Preparation:** Prepare the surface mechanically using methods like sand blasting, shot blasting, or a scarifier. The specific method chosen should depend on the type and severity of contamination present.
- **Dust Removal and Priming:** Thoroughly remove all remaining dust using a vacuum pump. Apply the required Apcoflor solvent-free primer or Apcoflor HFP 120 primer as the base coat.
- **Screed Application Timing & Porous Surfaces:** Begin applying the screed before the primer loses its tack. For porous floors, apply an extra coat of Apcoflor HFP100/HFP120 to prevent dry patches and ensure proper inter-coat adhesion. Also, ensure expansion joints are brought up through the coating.

2. Mixing:

- **Separate Initial Stirring:** Use a suitable power-driven mixer/stirrer for uniform blending. Begin by stirring the base and the hardener separately to prepare them for mixing.
- **Blend Aggregates in Base:** The next step is to blend the aggregates into the base component first, ensuring they are thoroughly incorporated before adding the hardener.
- **Gradual Hardener Addition:** Gradually mix the hardener into the base (containing the aggregates) under continuous stirring while adhering strictly to the product's stated mixing ratio.
- **Achieve Homogeneity and Pot Life:** Continue the mixing process for 3 to 4 minutes until all components become completely homogeneous. The mixed screed must be applied before the expiration of its pot life.

3. Application:

- Pour the prepared screed mixture directly onto the substrate in controlled sections and spread evenly using a steel trowel or notched spreader.
- Compact and level the screed by trowelling to achieve the specified thickness, ensuring uniform distribution across the floor area.
- Work systematically in small sections within the pot life (30–40 minutes) of the product to avoid cold joints and ensure continuous bonding.
- For larger areas, use a spike roller or wooden float to eliminate trapped air and achieve a smooth, seamless finish.

PRODUCT LIMITATIONS

- Primarily recommended for interior applications for best performance and durability.
- Application technique and elevated drying temperatures may cause slight variation in coating colour.
- As with all epoxy systems, the product may discolour or chalk under direct sunlight exposure.

STORAGE CONDITIONS

Store in dry, unopened conditions, ideally at 25°C, and keep the product protected from direct sunlight.

SHELF LIFE

Apcoflor HSC3 Screed has a shelf life of 12 months when stored in a dry, cool, clean environment below 25°C.

SAFETY PRECAUTIONS

- Always wear protective gloves, goggles, and clothing during mixing and application to prevent skin or eye irritation.
- Avoid direct contact with skin or eyes; in case of contact, wash the affected area with plenty of clean water.
- If inhaled, move the affected person to fresh air immediately and seek medical advice if discomfort persists.
- Ensure proper ventilation at the site of application to avoid inhalation of fumes.

- Keep away from heat, sparks, and open flames. Do not smoke during handling.

CERTIFICATIONS

Apcoflor HSC3 Screed complies with ASTM D 2697, ASTM C 579, ASTM C 50, ASTM C 30, ASTM C 1202.97, ASTM D 570 and ASTM D 4060:01 -C17.

DISCLAIMER

The information provided in this Technical Data Sheet is based on laboratory tests, industry practices, and practical application experience. However, actual site conditions may vary and are beyond the manufacturer's control. Asian Paints makes no warranties, expressed or implied, and shall not be liable for any loss or damage resulting from improper usage, handling, or non-compliance with the recommended guidelines. Users are advised to test the product for suitability before full-scale application.