TRI-FLOOR SF

Multi-purpose solvent-free epoxy coating.

Description

TRI-FLOOR SF is a two component, solvent free, slightly thixotropic protective floor and wall coating which is based on epoxy resin and specially selected curing agents,designs for continuous protection against chemical attack.

It is available in standard colors. Special colors can be produced

Standard compliance

- BS 8204-6 (Type 3)
- ASTM D4541
- ASTM D4060
- ASTM D2240
- ASTM C579
- ASTM D638
- ASTM C580

Typical uses

TRI-FLOOR SF could be used as a slip-resistance, abrasion resistance, chemical resistance, & floor coating in areas such as:

- Food and Soft drinks Factories.
- Chemical and pharmaceutical industries.
- Production areas.
- Warehouses.
- Dairies & dye works.
- Garages.
- Tanks and silos.
- Laundries.
- Hospitals and Medical fields.

Advantages

- Smooth and high build floor coating.
- Solvent free and odorless.
- Excellent adhesion to most substrates.
- Wear & abrasion resistance.
- High mechanical strengths.
- Can be done as Slip resistance.
- Highly Durable.
- High chemical resistance to most common reagents.
- Suitable for the Middle East conditions.

ISO 45001 ISO 14001 ISO 9001

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Technical Data @°25c

Color	White, Grey (other required colors)
Solid Content (by weight)	100 %
Density	1.6± 0.1 kg/L
Mixing ratio, A: B by weight	4: 1
Pot life	30 -45 min. (decreases at higher temperatures)
Initial curing time	8 hours
Final curing time	24 hours
Full hardness	7 days
Re-coating time	20 – 24 hours (depending on weather and DFT conditions)
Min. Application temperature	10° C
Compressive strength	54.95 N / mm2 after 7 days
Flexural strength	23.39 N / mm2 after 7 days
tensile strength	15.18 N / mm2 after 7 days
Adhesion strength to concrete ASTM C882	1.198 N / mm2 concrete failure
Adhesion strength to steel ASTM C882	2.44 N / mm2 concrete failure

Chemical Resistance .

Chemical Resistance			
Hydro chloride	10 %	30 %	No effect
Sulfuric acid	10 %	30 %	No effect on 10 % - Color changed on 30 %
Acetic acid	10 %		No effect
Sodium hydroxide	50 %		No effect on 10 % - Color changed on 30 %
Potassium hydroxide	50 %		No effect
Sodium chloride	50 %		No effect

Precautions for applications (according to BS 8204-6)

- A minimum of Grade RC25 concrete of BS 8500-2:2006 should be used.
- The surface tensile strength should exceed 1.5 N/mm.
- The surface moisture content should not exceed 4%.
- On the smooth surface (fair-face) pores should be treated using manual or mechanical methodology.
- The equipment used in this application includes brush, roller and spray (depending on thickness requirements).
- The concrete age should be 28 days at least.

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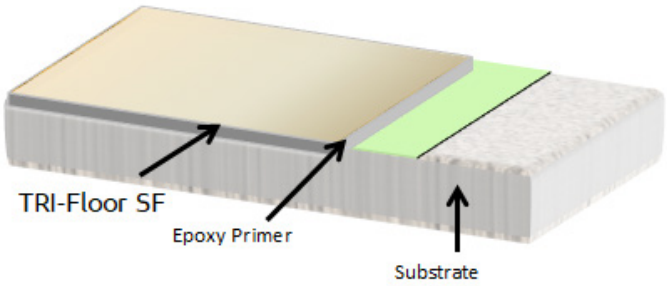
Recommended systems for TRI-FLOOR SF



System	Type of system	Tri-Chem's products	Theoretical DFT
System I	High build coating system	TRI-PRIME SF TRI-FLOOR SF	Depending on thickness
System II	High build coating system	TRI-PRIME SB TRI-FLOOR SF	Depending on thickness
System III	Anti-slip coating system	TRI-PRIME SF TRI-FLOOR SF Filler TRI-FLOOR SF	Depending on thickness
System IV	Multi-layer resin screed flooring system	TRI-PRIME SF TRI-Floor Screed TRI-FLOOR SF	Depending on thickness
System V	Special High build coating system (Moisture content 4-8% or Concrete age less than 28 days)	TRI-PRIME WET TRI-FLOOR SF	Depending on thickness
System VI	special High build coating system (UV resistance system)	TRI-PRIME SF TRI-FLOOR SF TRI-COAT PU	Depending on thickness

For more systems and methods of application, contact our technical office

Over coating and waiting :

- Waiting time for the **TRI-PRIME SF** coat before applying **TRI-FLOOR SF**:

Temperature	waiting time
10°C	≈ 24 hours
20 °C	≈ 12 hours
30 °C	≈ 8 hours

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- Waiting time for each coat of **TRI-FLOOR SF**:

Temperature	waiting time
10°C	≈ 30 hours
20 °C	≈ 24 hours
30 °C	≈ 16 hours

Directions for use

Surface preparation

• Surface preparation of the base is the most vital aspect of flooring application so the age of concrete is very important factor in this process.

• After surface preparation, all loose debris and dirt should be removed by vacuum equipment.

•It is essential that all surface contamination, e.g., oil, paint and rubber, should be removed and adequate mechanical preparation carried out to achieve a sound surface with cleanly exposed aggregate.

•Any weak or suspect concrete or repair patches should be removed. When mechanical preparation is complete, all dust and debris should be removed by vacuum equipment.

Mixing

•All products should be mixed mechanically.

•Some flow-applied flooring may be mixed using a heavy-duty slow speed drill (200 rpm to 500 rpm) drill fitted with a mixing paddle.

Primer process

• A primer that is appropriate for the nature and moisture content of the substrate should be selected.

• After mixing the components of the primer together, it should be applied as soon as possible, within its working life, to the prepared substrate.

• The primer should be applied evenly with a stiff brush or "lambswool" roller.

Coating application:

•Coatings should be applied by brush or roller in two or more coats.

•The first coat should be allowed to cure until it is just tack-free before the second coat is applied.

•Exceeding this time between as recommended waiting time table in this TDS.

For more details review the Tri-chem's application methodology

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Coverage

- 3 m^2 / kg - 2 Layers at 200 microns D.F.T per layer

Package

- **TRI-FLOOR SF**:- Group (A+B): 5Kg, 15 kg.

Cleaning

- all tools and equipment should be cleaned immediately after use with thinner.

Shelf life

- 24 months in good storage conditions .

Storage conditions

- Store the material in a cool, dry and covered place.
- Temperature should not exceed 35 °C.
- Do not expose the pails to direct sunlight and keep away from all sources of heat.

Sustainability and environmental accountability

- TRI-CHEM's Environmental sustainability is the accountability to conserve natural resources and protect global ecosystems to support health and well-being for this a more positive approach is that accountability guides the actions of power-holders towards more socially and environmentally sustainable results.

Technical support

- For any technical support, please contact TRI-CHEM technical office or representatives.

Health and safety responsibility

- Workplace health and safety is all about sensibly managing risks to protect TRI-CHEM's workers and business.
- ISO 45001 is a systematic health and safety management is characterized by strong leadership involving managers, workers, suppliers, contractors and customers and also health and safety management is an essential part of the movement towards sustainable development.
- Spillages should be washed down immediately.
- PPE in accordance with the health and safety rules should be used during the materials application.
- For irritant effects of the non-cured material, avoid contact with skin and eyes during storage and application.

Institutional Excellence and quality performance

- Institutional excellence in TRI-CHEM refers to achieving high levels of performance, quality and effectiveness in all aspects of TRI-CHEM company's work, it involves a systematic and continuous effort to improve an organization's performance by applying best practices, innovative approaches and evidence-based strategies, institutional excellence spans various areas, such as training, research, innovation, community engagement, governance, management and sustainability, and involves setting high standards, measuring performance against these standards and continuously improving performance to meet or exceed these standards, excellence in TRI-CHEM also includes a culture of continuous improvement and learning, where everyone in the organization is committed to achieving the organization's goals, working together to find solutions to challenges and opportunities, and requires a collaborative approach that includes all stakeholders.
- All products originating from TRI-CHEM facility are manufactured under a quality management system independently certified to conform the requirements of the quality standards (ISO 9001:2015).

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Disclaimer

• While TRI-CHEM guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control.

•TRI-CHEM is recommended to verify with TRI-CHEM that the product is suitable for the intended use, and that this data sheet version is the latest one.

• TRI-CHEM may modify it without prior notice and technical characteristics are listed for guidance only.

• Any specification, recommendation or information mentioned in this product data sheet is (to TRI-CHEM's best knowledge) true and reliable.

• However, because TRI-CHEM has no influence on the application method of these products and the care taken, the company cannot accept any liability arising from the use of its products.

•TRI-CHEM's warranty is therefore limited to the quality of the materials supplied which are guaranteed against defective materials.

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