GTF Freese
Marine Floorings

# Product Data Sheet

## TEFROTEX® SF

Self-levelling primary deck covering used as subfloor and levelling compound for floor coverings, tiles, synthetic coatings and natural stones. Excellent base for creation of mineral design floors

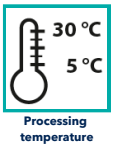
### 1. Field of Application

TEFROTEX® SF is a cement based system for installation of primary deck coverings on inside ship decks as well as mineral design floors on ships. The self-levelling product fulfills the requirements according to IMO FTP Code 2010 as primary deck covering and floor covering. TEFROTEX® SF is supplied as dry mortar in bags and is mixed with water on the job, application by hand.

### 2. Properties

| | | |
|---|---|---|
| • One component | • Easy application | • Self-levelling |
| • Fast curing | • Very high strength | • Excellent adhesion |
| • Single layer | • Jointless | • Early ready to be covered |

### 3. Technical Data


| | | | |
|---|---|---|---|
| Packing size | Dry Mortar | 25 | kg |
| Water demand | per bag | 6,0 | ltr. |
| Application temperature | | 5-30 | °C |
| Application thickness | | 1,0 - 15 | mm |
| Working time (+20°C) | | > 30 | minutes |
| Compressive strength | EN 13813 | > 30 | N/mm² |
| Flexural strength | EN 13813 | > 8 | N/mm² |
| Density cured mortar | EN 1015-10 | approx. 1,8 | kg/dm³ |
| Fire rating | IMO FTP Code 2010 | Part 5 | |

### 4. Packing

25,0 kg - bag (one component)
Fire-dried Quartz-sand 0,1 mm - 0,5 mm, 25 kg - bag
TEFROKA® KH Filler 25 kg - bag

## 5. Substructure

**Requirements**

- The substructure has to be dry, clean and free from grease and oil.
- Temperature of substructure should be higher than + 5°C.
- Condition of substructure always needs to be checked before application of TEFROTEX® SF.

**Substructures**

a) Steel-decks

- Steel-decks have to be prepared by the shipyard and treated with a suitable shop primer.
- If this is not the case, please contact us.
- The surface needs to be pre-treated with one of our bonding agents TEFRO®bond W1 or TEFROTEX® SF Bonding Coat before application of TEFROTEX® SF.

b) Aluminum decks and galvanized steel-decks

- These surfaces need to be clean, grinded and treated with TEFROTEX® SF Primer or TEFRO®prime EP 30 and one of our bonding agents TEFRO®bond W1 or TEFROTEX® SF Bonding Coat.

c) Cement-based substructures

- The Cement-based substructures need to be pre-treated with TEFRO®bond W1, diluted by water.

d) Other substrates

- Please contact us.

## 6. Application Information

Mixing

Preparation of the unfilled mixture for thicknesses up to 5 mm:

- Pour 6 liters of water into a 30 l mixing pail.
- Add one bag TEFROTEX® SF dry mortar powder while mixing with a slowly turning mixing device (approx. 400 rpm)
- Continue mixing of both components with slowly turning mixing device (approx. 400 rpm) until a homogeneous and lump-free mixture is reached.

Preparation of the mix when using Quartz-sand 0,1 - 0,5 mm for thickness from 5 - 10 mm:

- Pour 6,0 liters of water into a 30- l mixing pail.
- Add one bag of TEFROTEX® SF dry mortar.
- Stir up both components using an electrical mixer.
- Add approx. 6,0 liters of fire-dried Quartz-sand 0,1 - 0,5 mm (corresponding abt. 8,5 kg)
- Mix again all components.
- Mix until a homogenous and lump-free mixture is reached.

Preparation of the mix for thicknesses from 10 – 15 mm:

- Pour 6 liters of water into a 40 l mixing pail.
- Add one bag TEFROTEX® SF dry mortar powder.
- Stir up both components. Using an electrical mixer.
- Add approx. 10 liters of fire - dried Quartz-sand 0,1-0,5 mm (corresponding abt. 15 kg)
- Mix again all components

- Continue mixing until a homogeneous and lumpfree mixture is reached.

Preparation of the mix when using TEFROKA® KH Filler for thickness > 15 mm:
- Pour 6,0 liters of water into a 40- l mixing pail.
- Add one bag of TEFROTEX® SF dry mortar.
- Stir up both components. Using an electrical mixes.
- Add one bag of TEFROKA® KH Filler (25 kg).
- Mix again all components.
- Mix until a homogenous and lump-free mixture is reached.

**Application**
- Pour out the homogenous, lump-free mixture.
- For application use e.g. a leveling trowel.
- Smooth with a smoothing trowel.
- High temperatures shorten and low temperatures prolong the working time.
- After application protect at least 24 hours from direct sunlight, heat and draft.
- TEFROTEX® SF will be ready for foot traffic after 3-4 hours at an average temperature of +20°C.
- Following flooring should be applied only after TEFROTEX® SF has dried out completely.

- When installing TEFROTEX® SF at a thickness of 10mm or more, the addition of quartz-sand 0,1 - 0,5 mm can be increased to 10 Liters.

- For layer thicknesses > 15mm, TEFROKA® KH filler is used instead of quartz-sand 0,1 - 0,5 mm.
- By adding max. 0.5 liters of water, the consistency can be optimized.
- The residual moisture is affected and must be observed!

- On vibrating floors, the material is used without filler.
- Application thickness is 3 - 5 mm.

- For grouting, mix one bag of TEFROTEX® SF dry mortar with approx. 6.0 liters of water, mix until the material is lump-free.
- Application thickness is approx. 2 mm.

- Cement based substrate must first be treated with TEFRO®bond W1.
- Consumption approx. 0,08- 0,12 kg / m².

- Please contact us for any other approach of application.
- For use as design floors see separate recommendations.

**Efficiency**
- One bag dry mortar 25,0 kg + 6,0 liters water result in 17 liters.
- 17 liters cover approx. 1,7 m² at 10 mm thickness.
- Consumption Mortar 1,4 kg/mm/m².

**Equipment and Cleaning**
- Mixing tool, levelling trowel, smoothing trowel

- Rinse out tools with water right after use.

## 7. System Products

TEFROTEX® SF Primer, TEFROTEX® SF Bonding Coat, TEFRO®bond W1, TEFRO®prime EP 30, TEFROKA® KH Filler, fire-dried Quartz-sand 0,1 - 0,5 mm

## 8. Shelf Life

6 months, in a cool, dry, frost-free place in closed original bags at 10 - 30 °C. In case of discrepancies please contact us.



## 9. Color

- Grey

The color may vary between the batches, due to raw materials and reasons in the production process.

## 10. General Remarks

All mentioned figures and consumption values are results which were determined under laboratory conditions. When using the product on the job, deviating values may result. Lower temperatures delay; higher temperatures accelerate hardening and curing of the product. The specified minimum application temperatures have to be followed. No other materials may be added and the mixing ratios are not allowed to be changed.

## 11. Conformity

The product meets the criteria of IMO FTP-Code 2010, attachment 1, Part 5. MED Certification and type approvals of other classification societies are available. The conformity is in accordance with the effective regulations 2014/90/EU of 23-July-2014. For the wheel symbol the general principles of article 30, paragraph 1, 3 and 6 of the regulation (EG) no. 765/2008 apply.

## 12. Safety

This mineral product is cement based and poor in chromate. Read the hazard notes and safety advices as stated in the safety data sheets.

## 13. General Note

This product data sheet is based on the latest state of art and our experience and it is giving recommendations based on our best knowledge. However, it is without legal binding and establishes neither a contractual legal relationship, nor a secondary obligation on any sales contract. This product data sheet does not release the buyer or user of the obligation, to check the substructure and the material for the intended purpose. If the buyer or user is going to use the material differently than described above, it needs to be discussed with manufacturer before application. Without approval of altered use of material, usage is at the buyers or users risk. This refers especially to combinations with other products. Only product data sheets of latest date are valid.