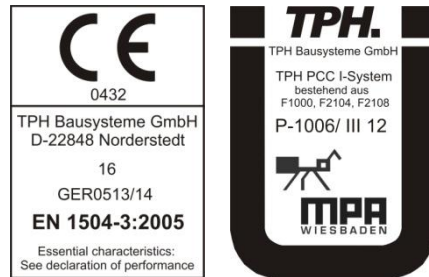


## F2104

**CE-marking in accordance with EN 1504-3  
General Building Authority Test Certificate  
BAST listed**



### Properties:

*F2104* is a ready to use, plasticised, dry mix based on cement with high adhesive strength and grain size of 0 - 4 mm.

*F2104* can be used for

- repairing and restoring concrete surfaces of all kind in system-compatible way,
- installing and repairing industrial floors and screeds,
- joint filling, sealing, coating and levelling,
- inside and outside applications.

*F2104* is free of chloride, resistant to oil, insulating and watertight, has excellent adhesive strength on plaster, masonry and concrete and is resistant to abrasion, frost, and de-icing salts.

*F2104* is suitable for thicknesses up to 60 mm.

### Technical data:

#### Substance data:

Consistency	solid, powdery	
Colour	grey	
Odour	hardly noticeable	
Bulk density	0.9 - 1.5 g/cm <sup>3</sup>	
Solids content	100 %	
pH-value	11 - 13.5	DIN EN ISO 10523

#### Reaction data:

Processing temperature	5 - 30°C	substrate temperature
Pot-life	approx. 90 min	at 10°C
	approx. 60 min	at 23°C
	approx. 25 min	at 30°C

#### Hardened mortar properties:

Compressive strength		DIN EN 12390-3
after 1 day	approx. 22 N/mm <sup>2</sup>	
after 7 days	approx. 40 N/mm <sup>2</sup>	
after 28 days	approx. 61 N/mm <sup>2</sup>	

Bending tensile strength		DIN EN 12390-5
after 1 day	approx. 3.9 N/mm <sup>2</sup>	
after 7 days	approx. 5.5 N/mm <sup>2</sup>	
after 28 days	approx. 8.8 N/mm <sup>2</sup>	

## Processing:

### 1. Preparation:

Parts that inhibit adhesion must be removed. It is recommended to clean the surface by means of sand blasting, flame blasting or shot blasting. This makes sure that the substrate has been sufficiently roughened.

The concrete must have an average tensile strength of  $\geq 1.5$  N/mm<sup>2</sup> (the smallest individual value should be  $\geq 1.0$  N/mm<sup>2</sup>).

Damaged reinforcement that is exposed should be blast cleaned to SA 2 ½ standard according to DIN 55928.

Two layers of *F1100* must be applied to the (steel) reinforcement. The second layer simultaneously serves as a bonding layer and is applied to the complete damaged area that has been pre-wetted.

If no reinforcement is exposed, apply *F1100* bonding course and corrosion protection as a bonding agent according to system. Brush it once into the pre-wetted substrate.

After that *F3100* can be applied to vertical surfaces to make an appealing (smooth) finish. It is also possible to add a thin color coat, which is economical because less paint is needed.

### 2. Mixing:

Approximately 3.25 litre of water per 25 kg bag should be mixed in a compulsory mixer (cyclone mixer) or with a slow running hand-held power mixer in a large mixing container. It should be mixed at least 3 minutes - until a mass is reached that is homogeneous and free of lumps. Let the mix rest; then mix it one more time briefly and use it immediately.

*Consumption:*

- 1 kg of dry mortar yields about 0.6 litre of fresh mortar
- for 1 m<sup>3</sup>, 1.850 kg -1.950 kg of dry mortar is needed
- for a layer thickness of 10 mm approx. 19 kg per m<sup>2</sup> is needed

### 3. After-treatment:

Freshly treated surfaces must be protected against premature evaporation.

Surface can be recoated with *F3100* after 12 hour (at 20°C).

## Safety information:

*F2104* contains cement and is classified as hazardous according to Regulation (EC) 1272/2008 (CLP).

It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.

**Packaging:**

25 kg paper bag  
42 x 25 kg per pallet

**Storage:**

Shelf life at least 12 month in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration the use of the product is generally not recommended, unless an approval has been provided by TPH. This approval can only be obtained by the quality assurance department of TPH releasing the material after verification of main properties being within specification.

**Disposal:**

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

**Test certificates:**

General Building Authority Test Certificate for the TPH PCC I-system consisting of *F1100*, *F2104* and *F2108* used as repair concrete or mortar; MPA Wiesbaden 2012

Included in the "List of certified surface protection systems" according to ZTV-ING, part 3, section 4 for *F1100*, *F2104* and *F2108*; Federal Board for Roads (BASt - Bundesanstalt für Straßenwesen) Bergisch-Gladbach 2012

**Legal notice:**

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

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