

# PRODUCT DATA SHEET

## SikaScreed® P-24

### RAPID HARDENING TERNARY CEMENT BINDER FOR RAPID HARDENING FLOOR SCREEDS

#### PRODUCT DESCRIPTION

SikaScreed® P-24 is a ternary cement binder for the production of low-shrinkage cement screeds for rapid use and covering.

#### USES

Suitable for heated and unheated screeds that are laid bonded or unbounded, over insulation or monolithically for interior use, with the capability for pedestrian traffic after 5 hours and covering after 24 hours, with all types of flooring.

#### CHARACTERISTICS / ADVANTAGES

- Full crystalline water binding
- Extremely low shrinkage for fast covering, even with rigid flooring systems
- Rapidly open to pedestrian traffic – after about 5 hours at +20°C
- Ready for covering after 24 hours with all types of flooring
- Pot life of at least 100 minutes at +20°C

#### ENVIRONMENTAL INFORMATION

- EMICODE EC1PLUS, tested at Eurofins, report G22338B\_03 and G22338B\_04

#### APPROVALS / STANDARDS

- Fire class A1, tested at MA 39, report VFA 2009-1114.2, November 2011

#### PRODUCT INFORMATION

|                            |   |
|----------------------------|---|
| <b>Chemical Base</b>       | Special ternary cement binder<br>Important Note: Do not mix with other binders!   |
| <b>Packaging</b>           | 25 kg bags, 40 bags per pallet  |
| <b>Appearance / Colour</b> | brownish-grey   |
| <b>Shelf Life</b>          | 9 months from date of production  |
| <b>Storage Conditions</b>  | store properly in undamaged, unopened and original sealed packaging, in dry conditions at between +5°C and +25°C.<br>Opened packaging should be resealed immediately. |
| <b>Bulk Density</b>        | ~ 0.9 kg/litre  |

#### TECHNICAL INFORMATION

|                             |   |
|-----------------------------|---|
| <b>Compressive Strength</b> | The strength development corresponds to a CT-C20-F4 min after 24 hours.<br>Final strength: CT-C40-F6 (depending on sand quality). Mixing ratio 1:5; 25kg P24:125kg screed sand 0-8mm. |
|-----------------------------|---|

## APPLICATION INFORMATION

|   |   |                                     |
|---|---|-------------------------------------|
| Consumption   | ~ 350 kg/m <sup>3</sup> screed mortar (at 90 mm layer thickness)  |                                     |
| Layer Thickness   | for 25 mm up to 90 mm screeds   |                                     |
| Ambient Air Temperature   | 0°C min. / +30°C max.   |                                     |
| Substrate Temperature   | +5°C min. / +30°C max.  |                                     |
| Pot Life  | ~ 100 minutes at +20°C<br>Lower temperatures extend the pot life and higher temperatures will shorten it. |                                     |
| Waiting Time / Overcoating  | pedestrian traffic after  | ~ 5 hours                           |
|   | covering after  | ~ 24 hours with all flooring types* |
| * If the specified mixing ratio is adhered to, the screed is ready for covering / overlaying after 24 hours at +20°C. A CM measurement should be taken to determine its readiness.  |   |                                     |
| <b>ready for covering or overlaying / CM content</b>  |   |                                     |
| <b>temperature</b>  |   |                                     |
| after 24 hours / at 20°C  | < 2.2 CM %  |                                     |
| after 24 hours / at 10°C  | < 2.5 CM %  |                                     |
| after 48 hours / at 20°C  | < 2.0 CM %  |                                     |
| after 72 hours / at 20°C  | < 1.7 CM %  |                                     |
| CM-measurement with cross-section sample (batch weight 50 g) after shaking for 2 minutes at the start and 1 minute shaking after 5 minutes. CM value taken after 10 minutes.  |   |                                     |
| When the screed is ready, it should be covered immediately to prevent re-wetting due to building moisture or cooling below dew point.   |   |                                     |
| For monolithic structures, wait until the substrate has also dried out.   |   |                                     |
| Heated screeds can start to be heated after 2 days (at +20°C room and material temperature) at a flow temperature of +25°C. The flow temperature can be raised to the maximum temperature after another 3 days. After 3 more days at maximum temperature, reduce the flow temperature and lay over the screed immediately at +15°C minimum. |   |                                     |
| Screeds with SikaScreed® P-24 are heat resistant to +50°C.  |   |                                     |

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

#### Monolithic screeds

The substrate must be sound, load bearing and free from cracks.

Any unsound materials, cement slurry, de-bonding layers (e.g. dirt, dust, grease, oil, paint residues etc.) must all be removed. Extremely dense, impermeable and/or smooth substrates must be mechanically prepared and roughened.

For monolithic installation of the screed, a bond coat of SikaScreed®-10 BB must first be brushed well into the pre-dampened substrate and the screed must then be laid into this fresh bond coat 'wet on wet'.

If in doubt apply sample areas first as a trial.

#### Floating / un-bonded screeds

The screed mix design and thickness must be adapted to the insulation characteristics and the required service stresses, all in accordance with the current standards for semi-dry cement screeds. Installation of a vapour barrier / separating layer on top of the insulation layer is generally recommended before laying this type of screed.

#### MIXING

Keep screed mixes with SikaScreed® P-24 as cool as possible, and use cold tap water for gauging. Pre-cool this when appropriate.

Place half the quantity of damp sand in the screed pump or paddle mixer, add all of the SikaScreed® P-24 and half of the water, premix briefly and then add the remaining sand and water until the required consistency is obtained.

The mixing time should be at least 2 minutes.

Mixing ratio for standard commercial screed pumps (220 litres):

- 50 kg SikaScreed® P-24 (2 bags)
- 250 kg screed sand 0 - 8 mm (3/4 filled pump) = approx. 33 shovels
- 22 litres total water (sand moisture content to be taken into account and included)
- w/c ratio 0.45 maximum

Note: A standard screed pump holds about 320 kg of sand and therefore should only be 70 % filled with this mix.

## APPLICATION

The prepared surfaces must not be larger than can be completed during the pot life of the binder and the screed mix produced.

The semi-dry to stiff-plastic screeding mortar is applied using a rake, batten and suitable finishing trowels.

## CLEANING OF TOOLS

Clean containers, tools etc. with water during the pot life. After hardening, cleaning is only possible mechanically.

## LIMITATIONS

- Protect the screed mortar during setting from direct sunlight, draughts, frost, driving rain and high room temperatures (>+25°C).
- Substrate movement and construction joints must be brought through and treated as such.
- The technical data relates to +20°C and 65 % relative humidity. Lower temperatures extend the values given and higher temperatures will shorten them.

## VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling.

Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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