PRODUCT DATA SHEET

Rapid Screed Cement

UZIN SC 960

Special binder for producing very rapid readiness for covering screeds for interior and exterior use

Description:

Calcium aluminate cement, category SZ-T according to TKB-Technical Briefing Note 14, for producing fast-setting cement screeds with early readiness for covering. Depending on the quality of the screed sand and the mixing ratio, cementitious screeds of strength classes CT-C25-F4 to CT-C40-F7 can be produced according to DIN EN 13 813. For interior and exterior use.

Suitable for:

- mixing with screed sand in standard screen line area and water according to customary installation method at the construction site
- bonded screeds
- screeds on separating membrane
- screeds on insulation layers (floating screeds)
- heated screeds
- screed work under tight deadlines where common drying times of conventional screeds cannot be waited for
- as UZIN system component in rapid construction

Problem solution with the renovation of building projects requiring early usage as well as with time pressure in new constructions.

Product Properties / Benefits:

Powdery, hydraulically setting special binder with significantly greater water retention capacity than normal Portland cement. UZIN SC 960 can be mixed and pumped using normal screed techniques. Accelerated setting and drying, thus ready for covering after one day.

Composition: Special cements, redispersible polymer powders, additives.

- Quick cement class SZ-T (TKB-Technical Briefing Note 14)
- Very rapid setting
- Very rapid drying
- High strength
- Low stress
- Ready for covering after approx. 1 day
- Waterproof and frost-resistant
- For all screed constructions
- Low chromate content
- EMICODE EC 1 R PLUS / very low emission

Technical Data:

Packaging:	paper bag
Packsize:	25 kg
Shelf life:	min. 6 months
Mixing ratio binder / sand:	1 : 4, 1 : 5, 1 : 6 parts by weight
Required water quantity:	12 – 22 litres (according to sand moisture content)
Water / Cement value:	max: 0.45
Colour:	grey
Coverage:	See "Application table"
Working temperature:	+5 °C to 25 °C at floor level
Mixing time:	2 – 3 minutes
Working time:	40 – 60 minutes*
Set to foot traffic:	after 3 – 5 hours*
Heat drying:	3 days after installation
Ready for covering:	from 24 hours*

* At >10 °C, 80 % relative humidity and common screed thickness of 4.5 cm. See also "Ready for covering".

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UZIN SC 960

Subfloor Preparation:

Test the substrate in accordance with applicable standards and bulletins and report any deficiencies. Possible deformation of the substrate must be completed as much as possible.

Bonded screed:
Depending on condition, brush, abrade, grind or shot-blast the substrate, remove loose material and thoroughly vacuum the surface. Dampen the concrete several times. As bonding agent, make a slurry using 4 parts UZIN SC 960, a little screed sand and 1 part water. Adjust consistency by adding water. Brush the slurry onto the pale damp or properly primed concrete using a hard broom. Apply the screed mortar immediately "wet in wet".

Screed on separating membranes or insulation:
Incorporate the separating layers without folds and with adequate overlap at the joints.

Install insulating materials with adequate dynamic rigidity and lying flat. Allow for proper coverage of heating pipes as well as edging strips, bay-joints and movement joints.

Example for screed thicknesses according to DIN 18 560 for cementitious screeds according to CT-C40-F7 for perpendicular loads ≤ 2 kN/m² (table 1):

Bonded screed:	min. 2.5 cm
Screed on separating membrane:	min. 3.5 cm
Screed on insulation:	min. 4.0 cm
Screed covering heating pipes:	min. 4.0 cm

Application:

1. Mix UZIN SC 960 with washed screed sand 0/8 (A/B 8 in accordance with DIN 1045-2) and water using screed pump or compulsory mixer. Choose cement/sand mixing ratio according to quality required, see "Application table".
2. The required amount of water (note w/z value of max. 0.45) depends on the sand moisture content. Mortar consistency should be between 'wet earth' and 'plastic', make sure no to mix too thin.
3. Mix only as much mortar as can be applied within approx. 1 hour. During work breaks, empty and clean out mixer, pump and hoses immediately. Deliver, distribute, compact and smooth the screed very quickly. Take rapid setting into account.
4. Check the residual moisture using the CM test equipment according to current BEB bulletin. Test duration 10 min., 50 g net sample weight.

Application table:

Mixing ratio for 200 l pump with 300 kg screed sand:			
Strength	**Mixing ratio**	**Consumption / mix**	**Approx. coverage**
CT-C25-F4	1 : 6	2 sacs (50 kg)	10 m² at 1 cm per bag
CT-C35-F6	1 : 5	2.5 sacs (62.5 kg)	8 m² at 1 cm per bag
CT-C40-F7	1 : 4	3 sacs (75 kg)	6 m² at 1 cm per bag

Readiness for covering:

	CM measurement, after installation	Subsequent measurements, after 24 hours	Readiness for covering in days*
Ceramic tiles, slabs	≤ 3.5 CM-%	≤ 3.5 CM-%	approx. 1
Textile floors	≤ 3.0 CM-%	≤ 3.0 CM-%	approx. 2
Resilient floor covering, e.g. linoleum, rubber, PUR coating**	≤ 3.0 CM-%	≤ 2.5 CM-%	approx. 5
Wood flooring, cork, laminate	....	≤ 2.0 CM-%	approx. 7**

With wood flooring, cork or laminate top covering always wait for 2.0 CM-%

* At >10 °C / 80 % rel. humidity, forced ventilation and a screed thickness of 40 – 55 mm insulation or separating layer.

** Mixing ratio 1:4

Important Notes:

- Shelf life at least 6 months in original packaging when stored in dry conditions. Tightly re-seal opened packaging and use the contents as quickly as possible.
- Heat drying: Refer to separate heating protocol when used as heated screed. Refer to the Internet at (www.uzin.com or www.codex-x.com).
- In outdoor locations prior to installation of tiles or natural stone, a sealing coat, e.g. of codex NC 210 or codex NC 220, must be applied.
- For surfaces exposed to constant freeze-thaw conditions, in outside locations as well as for surfaces that will be used without floor covering / protective coating, application consulting should be obtained.
- UZIN SC 960 is not suitable for use in underwater locations.
- Optimal installation conditions are at 15 °C and a relative humidity below 65 %. Low temperatures, high humidity and greater thickness will delay whilst high temperatures will accelerate setting, drying and readiness for covering. Protect freshly installed screeds from strong draughts, direct sunlight and effects of heat. Install the top covering immediately after reaching the readiness for covering to prevent another introduction of moisture through high humidity.
- To ensure a better screed quality – if uncertain about the sand quality or moisture content – add a little less sand (approx. 4 shovels) and mixing water to the mixing container for the same amount of binder. Do not completely fill the mixer.
- Quality factors: Readiness for covering and strength depend, amongst others, on the amount of water used. With a lower water quantity, the screed mortar has a stiffer consistency but with good compaction a higher strength and quicker readiness for covering. Too much water reduces the strength, delays drying, increases shrinkage and the risk of cracking.
- Follow the generally acknowledged rules of the trade and of technology for screed installation of the respective applicable standards (e.g. EN, DIN, VOB, Ö-Norm, SIA, etc.) The following standards and bulletins represent supporting information and are recommended for special attention.
  – TKB-Technical Briefing Note 14 "fast-setting cement screeds"
  – DIN EN 13 813 "Screeds material and floor screeds"
  – DIN 18 353 "Working with screeds"
  – DIN 18 195 "Sealing buildings"
  – DIN 18 560 "Screeds in the building industry"
  – ZDB bulletin "Pipes, cables and cable ducts on bare floors / ceilings"
  – "Interface coordination with heated floor constructions"

Protection of the Workplace and the Environment:

Contains cement low in chromate acc. Regulation (EC) 1907/2006 (REACH). Cement produces strong alkaline on reaction with water. Avoid contact with skin and eyes. In the event of contact, rinse immediately with water. In the event of skin or eye irritation, seek medical advice. When mixing wear a protective dust-mask. Use protective gloves. Presents no physiological or ecological risk when fully cured.

EMICODE EC 1 R PLUS – very low emission. Within the scope of current knowledge, gives off no emissions of formaldehyde, hazardous materials or volatile organic compounds (VOC).

Basic prerequisites for best possible indoor air quality following floor covering work are conformity to standards of the working conditions, as well as thoroughly dry substrate, primer and smoothing compound.

Disposal:

Where possible, collect product residues and re-use. Do not allow dispersal into drains, sewers or ground. Empty paper bags are recyclable. Collect waste material, mix with water and allow to harden, then dispose of as Construction Waste.

The above information is based on our experience and careful investigations. The variety of associated materials and different construction and working conditions cannot be individually checked or influenced by us. The quality of your work depends, therefore, on your own professional judgement and product usage. If in doubt, conduct a small test or obtain technical advice. Observe the installation recommendations of the covering manufacturer. The publication of this Product Data Sheet invalidates all previous Product Information. The respective updated version of this datasheet can be found on our Homepage under www.uzin.com.