



CONTOPP®

RS 10 HD

Article n°: 20.251

Technical
datasheet

PROPERTIES

Function

- Quick to dry semi-dry sand/cement screeds within 14 days
- Increase in strength through synthetic hardening
- Load-dependent reduction of the screed thickness down to 30 mm
- Contains tracer for a subsequent half-quantitative analysis in sand/cement screeds
- Rehydration protection

Application area

- For producing bonded screeds and floating screeds
- For producing of non-standard thin-layered screeds
- For producing screeds on underfloor heating
- For damp or outside areas

Data

| | |
|-------------------------|--------------------------------------------------------|
| Colour: | Milky green |
| Colour tracer-pigment: | green |
| Form: | liquid |
| Density (at 20 °C): | 1.14 ± 0.01 g/ml |
| Processing temperature: | above + 5 °C |
| Shelf life | ca. 12 months – protect from frost and direct sunlight |
| Supply form: | PE-HD-can: 20 kg netto Container: 1,100 kg netto |

TECHNICAL DATA

| Mix | 1 : 5 mix by weight | Standard | CONTOPP® | Unit |
|------------------------|---------------------|-------------|-------------------|------|
| Cement | 63 | 63 | 63 | kg |
| Sand 0/8 ¹⁾ | 310 | 310 | 310 | kg |
| RS 10 HD | - | - | 1.3 ²⁾ | ltr. |
| w/c-ratio | 0.70 - 0.80 | 0.70 - 0.80 | 0.53 – 0.55 | |

| Strength | Criteria | Standard | CONTOPP® | Unit |
|------------------------------|------------|------------|------------|-------------------|
| Flexural strength (28 days) | F5 | F5 | F7 | N/mm ² |
| Comp. strength (28 days) | C25 | C25 | C40 | N/mm ² |
| BRE test (impact resistance) | Category B | Category B | Category A | |

| Floor Finish | Criteria | Standard | CONTOPP® | Unit |
|-----------------------------------------------------------|----------------------------|----------|----------|-------|
| ¹⁾ according to EN 13139 | Foot traffic | 72 | 24 | hours |
| ²⁾ corresponds to 2.0 V-% of the cement weight | Receive final floor finish | ≥ 28 | 14 | days |

This ideal screed mortar can only be manufactured whilst adhering to the processing information listed below. The details refer to 40 – 50mm screed thickness without UFH and 65 – 70mm screed thickness with UFH, normal climatic conditions at + 20°C and a relative humidity of 65%. Using sand with maximum grainsize < 8mm strength can be lower.

Basic materials

- CEM I or CEM II following EN 197.
- Aggregates following EN 12518.

PROCESSING INFORMATION

Recipe

- **Stir the CONTOPP® RS 10 HD before use and regularly during use in order to prevent segregation!**
- Stick to the dosage (2.0 V-% of cement weight); ingredients should be added to the moistened mix. W/c-ratio < 0.55
- Mix for at least 2 minutes after adding all the components



Construction site conditions

- Protect from draughts and direct sunlight during setting.
- Remove surplus moisture by means of draught-free ventilation (natural ventilation).
- Nature of construction and site preparation following general codes of practice.

SPECIAL INFORMATION

Minimum screed thickness ¹⁾

| Flexural strength | Bonded | Unbonded | Floating | on underfloor heating ^{2) 3)} |
|---------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------------------|
| 7 N/mm ² | Standard: 20 mm Heavy duty: 20 mm | Standard: 30 mm Heavy duty: 35 mm | Standard: 35 mm Heavy duty: 40 mm | Standard: 35 mm Heavy duty: 40 mm |

- ¹⁾ Working load: Standard ≤ 2.0 kN/m²; Heavy duty: ≤ 3.5 kN/m²
²⁾ In the case of screeds on underfloor heating thickness above the pipes
³⁾ No steel reinforcement required

Drying time ^{1) 2)}

| Screed thickness | 20 mm | 30 mm | 40 mm | 50 mm | 60 mm | 70 mm |
|--------------------------------------------|--------|--------|--------|---------|---------|---------|
| ≤ 3.0 CM-% residual humidity ²⁾ | 2 days | 5 days | 9 days | 14 days | 20 days | 27 days |

- ¹⁾ Normal climatic conditions at + 20 °C and a relative humidity of 65 %
²⁾ The residual moisture content must be tested prior to the application of the final floor finish (CM-method).

Screed on underfloor heating - start-up heating protocol ^{1) 2)}

| Heating process after laying | 4 th day | 5 th day | 6 th day | 7 th day | 8 th day | 9 th day | 10 th day | 11 th day | 12 th day |
|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|
| Temperature | 25°C | 35°C | 45°C | 55°C | 55°C | 55°C | 45°C | 35°C | 25°C |

- ¹⁾ It can be useful to lengthen the heating procedure for screed thicknesses of > 50 mm above the pipes to achieve sufficient drying.
²⁾ During the heating phase do not carry out any finishing work and do not cover or block the screed surface.
³⁾ UFH must be switched off during the laying of the screed.

Measuring residual moisture content

- Prior to laying the top flooring, the residual moisture of the screed must be measured by the person laying the floor.
- According to the KNOPP's manufacturers advice all floor coverings must be laid under a residual moisture content of 3.0 % using the carbide bomb measuring device (corresponds to approx. 4.5 Tramex reading – to be used only as indicator test).

GENERAL INFORMATION

Health & Safety

- Always observe general work hygiene when using our products.
- CONTOPP® accelerator systems are solvent-free and chloride-free.
- Our products do not deteriorate when stored properly (see data). Therefore, the stability and reactivity are not affected by storage.
- Find out more information on handling CONTOPP® accelerators from our safety data sheets.

Standards and testing regulations

- EN 13139: Aggregates for mortar
- EN 197: Cement – Part 1: Composition, specifications and conformity criteria for common cements

Comments

The raw materials we process and the products we produce are subject to strict factory inspections. Do not use products from other manufacturers when using this product. It is stressed that our products and the procedure must be tested for suitability for the expected construction site conditions. The quality of screeds is essentially influenced by the quality of sand and cement, the mixing rates and the processing in accordance with approved screeding technology. Upon the publication all other previous copies shall become invalid.

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