

# CONTOPP®

## HARDENING AGENT 35

Article n°: 20.335

### Function

- Production of heavy-duty screeds with high-strength performance
- Reduction of the screed thickness to a minimum of 30 mm on insulation or polythene sheet
- Can be combined with CONTOPP® Accelerator Systems

### PROPERTIES

### Application area

- For producing highly stressed, sand/cement wearing screeds in accordance with BS 8204.
- For producing wearing screeds with hard granular surfacing.
- For producing screeds on underfloor heating.

### Data

Colour:	Yellow-brownish
Form:	liquid
Density (20 °C):	1.25 ± 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: 24 kg netto Poly-drum: 240 kg netto Container: 1.200 kg netto

### TECHNICAL DATA

### Mix

1 : 5 mix by weight	Standard	CONTOPP®	Unit
Cement	63	63	kg
Sand 0/4 <sup>1)</sup>	310	310	kg
Hardening Agent 35	-	1.3 <sup>2)</sup>	ltr.
w/c-ratio	0.70 - 0.80	0.45 – 0.55	

### Strength

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

### Floor Finish

<sup>1)</sup>according to BS EN 13139

<sup>2)</sup>corresponds to 2.0 V-% of the cement weight

This ideal screed mortar can only be manufactured whilst adhering to the processing information listed below. The details refer to 50 mm screed thickness, normal climatic conditions at + 20 °C and a relative humidity of 65 %.

Criteria	Standard	CONTOPP®	Unit
Foot traffic	72	24	hours

### Basic materials

- OPC oder blends following BS EN 197.
- Aggregates following BS EN 13139.

### PROCESSING INFORMATION

### Recipe

- 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 construction site preparation following BS 8204-1 and 8000.



**Minimum screed thickness <sup>1)</sup>**

Flexural strength	Bonded	Unbonded	Floating	On underfloor heating <sup>2)</sup>
7 N/mm <sup>2</sup>	Standard: 20 mm Heavy duty: 20 mm	Standard: 30 mm Heavy duty: 35 mm	Standard: 30 mm Heavy duty: 50 mm	Standard: 35 mm Heavy duty: 50 mm

<sup>1)</sup> Working load: Standard ≤ 2.0 kN/m<sup>2</sup>; Heavy duty: ≤ 3.5 kN/m<sup>2</sup>  
<sup>2)</sup> In the case of screeds on underfloor heating thickness above the pipes

**SPECIAL INFORMATION**

**Screed on underfloor heating - start-up heating protocol <sup>1) 2)</sup>**

Heating process after laying	19 <sup>th</sup> day	20 <sup>th</sup> day	21 <sup>th</sup> day	22 <sup>th</sup> day	23 <sup>th</sup> day	24 <sup>th</sup> day	25 <sup>th</sup> day	26 <sup>th</sup> day	27 <sup>th</sup> day	28 <sup>th</sup> day
Temperature	25°C	35°C	45°C	55°C	55°C	55°C	55°C	45°C	35°C	25°C

<sup>1)</sup> It can be useful to lengthen the heating procedure for screed thicknesses of > 50 mm above the pipes to achieve sufficient drying.  
<sup>2)</sup> During the heating phase do not carry out any finishing work and do not cover or block the screed surface.

**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.
- Whilst adhering to all the manufacturer’s details, BS 8203 recommends laying the screed under 75 % relative humidity.

**Health & Safety**

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

**GENERAL INFORMATION**

**Standards and testing regulations**

- BS 8203: Installation of resilient floor coverings
- BS 8204: In-situ floorings – bases and screeds
- BS 8000: Code of practice for cement/sand floor screeds and concrete floor toppings
- BS EN 13139: Aggregates for mortar
- BS 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.

**Stand** 17.02.2023