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TECHNICAL DATA SHEET

KNOPP

Adolf-Oesterheld-Str.1
D-97337 Dettelbach
Tel: +49(0)9324/9199-0
info@knopp-chemie.com
knopp-chemie.com

CONTOPP®
DUREMIT 50

PROPERTIES

PRODUCT DESCRIPTION

- 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
- Favourable processing and smoothing properties thanks to the plasticising components
- Reduce shrinkage – Shrinkage class SW2
- Low-emission certified - EMICODE EC1^{plus}

APPLICATION AREA

- For producing highly stressed, sand/cement wearing screeds
- For the production of high-strength industrial screeds
- For producing wearing screeds with hard granular surfacing
- For producing screeds on underfloor heating

TECHNICAL DATA

CHARACTERISTICS

Colour:	brown
Form:	liquid
Density (at 20 °C):	1.15 ± 0.02 g/ml
Processing temperature:	above + 5 °C
Shelf life:	Approx. 12 months – protect from frost and direct sunlight
Supply form:	**Disposable container:** PE-HD-can: 20 kg total **Reusable container:** Container: 1100 kg total

MIXING MODEL

1 : 5 mix by weight	Standard	CONTOPP®	Unit
Cement	63	63	kg
Sand 0/8[1]	310	310	kg
Duremit 50	-	1.3[2]	ltr.
w/c-ratio	0.70	0.50	

STRENGTH

Criteria	Standard	CONTOPP®	Unit
Flexural strength (28 days)	F5	F7	N/mm²
Compressive strength (28 days)	C25	C40	N/mm²
BRE test (impact resistance)	Category B	Category A	

FLOOR FINISH

Criteria	Standard	CONTOPP®	Unit
Foot traffic	72	24	hours

[1] according to BS EN 13139

[2] 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 50mm screed thickness without under floor heating (UFH) and 65mm screed thickness with under floor heating, normal climatic conditions at + 20°C and a relative humidity of 65%. A lower grainsize of sand of less than 8mm can lead to lower strength development. However, when the mixing ratios of the standard mixture and the CONTOPP® mixture are varied, the quality of the screed mortar enhanced with CONTOPP® will generally be higher than that of the standard mixture.

PROCESSING INFORMATION

BASIC MATERIALS

- CEM I 32.5 R or CEM II (A-Type) 32.5 R following EN 197-1
- Aggregates following EN 13139

RECIPE

- Stick to the dosage (1.0 – 2.5 V-% of cement weight); ingredients should be added to the moistened mix.
- W/C-ratio ≤ 0.50
- Mix for at least 2 minutes after adding all the components

CONSTRUCTION CLIMATE CONDITIONS

- Protect from draughts and direct sunlight during setting.
- Remove excess moisture through draft-free cross-ventilation (4 times a day for 20–30 minutes).
- 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/mm²	Standard: 15 mm Heavy duty: 20 mm	Standard: 30 mm Heavy duty: 35 mm	Standard: 30 mm Heavy duty: 40 mm	Standard: 30 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

SCREED ON UNDERFLOOR HEATING - START-UP HEATING PROTOCOL [1, 2]

Heating process [3] after laying	19th day	20th day	21th day	22th day	23th day	24th day	25th day	26th day	27th day	28th day
Temperature	25°C	35°C	45°C	55°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 > 50mm above the pipes to achieve sufficient drying.
[2)] The residual moisture content must be tested prior to the application of the final floor finish (CM-method).
[3)] Under floor heating 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.

GENERAL INFORMATION

SAFETY

- Always observe general work hygiene when using our products.
- CONTOPP® Duremit systems are solvent-free and chloride-free.
- Our products do not deteriorate when stored properly. Therefore, stability and reactivity are not affected by storage.
- You can find out more information on handling CONTOPP® Duremit 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. Since we have no control over site conditions or construction practices, no legal liability can be derived from this technical data sheet. Upon the publication all other previous copies shall become invalid.

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