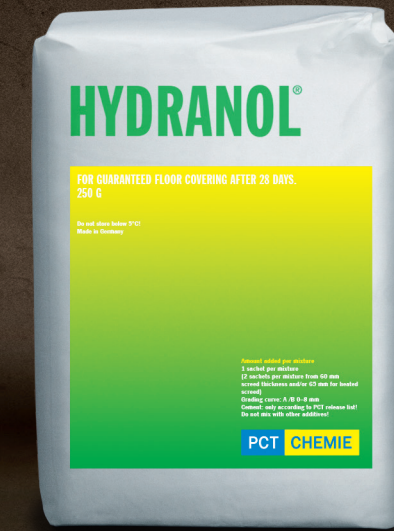




HYDRANOL®



FOR FLOORCOVERINGS STARTING FROM 28 DAYS

HYDRANOL®

EASY AND RELIABLE FLOORCOVERING AFTER 28 DAYS.

1. FUNCTION

Innovative, easy-to-use screed reinforcing agent in powder form for making low-shrinkage, low-tension and earth-moist up to stiff to pliable cement screeds with a guaranteed floorcovering within 28 days.

2. APPLICATION RANGE

For making cement screeds of quality classes up to CT-C30-F5 (cement quantity for F5 at least 55 kg standard screed mixture = 275 kg/m³) for floating screeds, bonded screeds and screeds on separation layers in accordance with DIN 18560 and DIN EN 13813. Also suitable for use over floor heating.

3. PRODUCT PROPERTIES

- Floorcovering after 28 days for screed thicknesses up 60 mm, up to 65 mm on floor heating.
(For higher screed thicknesses 2 sachets per mixture are required.)
- Very easy handling thanks to ready-to-use sachets. Just add the contents of the sachet to the mixture.
This prevents different dosages and dosing errors.
- Works virtually regardless of temperature and air humidity (not below +5 °C and not above +28 °C).
- Excellent application properties, also thanks to much easier and faster levelling.
- Insensitive to moisture, therefore also suitable for permanently wet areas.
- Can be walked on after 24 hours (at ambient temperatures > +15 °C).
- Can be subjected to load after 7 days if exposed to standard site traffic and in accordance with the strength class (at ambient temperatures > +15 °C).
- Improvement of thermal conductivity
- Increased screed quality
- Compact screed structure

4. REQUIREMENTS

DIN 18560, DIN 13318 and DIN 13813 must be observed when applying Hydranol®.

a) Aggregates and cements

For aggregates, grading curve A/B, 0–8 mm, must be used for making screed concrete in accordance with DIN 1045-2. Cement: see PCT Cement Approval List. Only use suitable types of cement.

b) Ventilation

Start regular ventilation from the 5th day after completion of the screed application. All windows and doors must be opened for 20 to 30 minutes two or three times a day. Draughts must be avoided.

This air exchange is particularly important for the drying process and obtaining readiness for floorcovering and must be observed.

This also applies in particular to the heating phase for heated screed structures.

5. BUILDING CLIMATOLOGY

Remember during the hardening process to provide protection against draughts and direct sunlight. Protect freshly laid surfaces from drying out too quickly. When applying floor screed outdoors, appropriate protective measures must be taken against direct sunlight, too rapid drying and rain (rain protection for at least 3 days after screed application). When applying floor screed in the hot summer months it is recommended to restrict the application work to the (early) morning hours.

6. MIXING INSTRUCTIONS (MIXTURE IN STANDARD SCREED PUMP/MIXING VESSEL 250 L GROSS CAPACITY)

Mixing ratio	
Hydranol®	1 sachet/mixture (for screed thicknesses above 60 mm or for heating screeds over 65 mm: 2 sachets)
Cement CEM I or CEM II approved by PCT	50 kg (or more depending on required quality) = 250 kg/m³
Gravel sand, 0–8 mm (grading curve range A/B, 0 – 8) according to DIN 1045-2	310 kg kg = 1.850 kg/m³
Water-binder ratio:	0.45 – 0.70
Application temperature:	+5 °C to +25 °C
Requirements (quality test) depending on cement content up to bending tensile strength after 28 days Compressive strength	5 N/mm² 30 N/mm²

Preparation (please observe!)
<ul style="list-style-type: none">• Fill the floor screed conveyor to one-half as usual• Add the appropriate amount of cement but at least 50 kg = 250 kg/m³• Add the contents of the Hydranol® sachet(s)• Add water as usual• Mixing time: at least 1 minute

7. INSTRUCTIONS FOR USE

The instructions of the manufacturer PCT Performance Chemicals GmbH, the relevant specifications of DIN 18560, DIN EN 13813 and the data and information in the respective technical data sheets are applicable to the screed application. For heated screeds, DIN EN 1264-4 and the technical information „Interface coordination for heated floor structures“ of the Zentralver-band Sanitär Heizung Klima (Central Sanitary, Heating and Air Conditioning Trade Association), St. Augustin, and the information sheets published by the ZDB (Central Association of the German Building Trade) in connection with heated floor structures are also applicable.

8. HEATING PHASES FOR USE AS HEATING SCREED

The entire heating phase described below must take place over 24 hours for each temperature step **without night setback**. The individual flow temperatures must be set manually. System-controlled, automatic heating programmes must not be used.

Start on 15th day after completion of the screed application	Flow temperature: +25 °C
From the 16th day	Flow temperature: +35 °C
From the 17th day	Flow temperature: +45 °C
From the 18th day up to and including the 24th day (at least 7 days)	Flow temperature: +55 °C
From the 25th day	Flow temperature: +45 °C
From the 26th day	Flow temperature: +35 °C
From the 27th day	Flow temperature: +25 °C

On the 28th day after completion of the screed application and after completion of the heating measure the CM measurement can be performed.



The heating process can be repeated if necessary. If a maximum flow temperature of +55 °C cannot be obtained, the maximum flow temperature obtainable by the heating system must be set from the 18th day after completion of the screed application and maintained up to the 24th day. The recommended maximum admissible surface temperature specified by the floor covering material and flooring manufacturers must be observed when laying the floor coverings.

9. CM MEASUREMENT

The CM measurement must be performed according to the PCT measuring instruction on the 28th day after completion of the screed application.

1. Samples must be taken over the total cross-section of the screed to be measured. The top 2 mm must be removed in order that no surface moisture is also measured.
2. Fill the accurately weighed and crushed sample (50 g) and the steel balls into the CM pressure cylinder. Then hold the CM pressure cylinder in an inclined position and carefully slide in a calcium carbide vial.
3. Close the CM pressure cylinder with the lid and crush the CM vial by vigorous horizontal shaking.
When beginning the measurement, please note the time.
4. Then carry out circular and horizontal movements with the CM pressure cylinder for two minutes to further crush the sample material and to mix it with the calcium carbide. Repeat this process for one minute after five minutes (circular movements). Read the value after 10 minutes. Prevent the steel balls from vertical knocking against the measuring head below the manometer. This will damage the measuring head and the measured values will be useless.
5. After the 28th day up to the 56th day the screed may have a max. residual moisture of 2.5 %. As from the 57th day according to DIN 18560 part 1 / 5.5 (1.8 % for heated and 2.0 % for unheated surfaces).

Always wear gloves during the measurement!