

CASEA RADDIPLUS NA RAPID ALPHA HEMIHYDRATE FLOOR SCREED BINDER

CASEA RADDIPLUS NA Rapid Alpha Hemihydrate Binder is a specially formulated calcium sulphate binder suitable for the production of rapid-self-drying top-quality self levelling (flowing) floor screeds, simply by blending with a suitable sand and water on site. CASEA RADDIPLUS NA Rapid Alpha Hemihydrate Binder complies with EN 13454-1:2004 and is CE marked.

- Rapid-Self-Drying, allowing early floor covering
- Pumpable
- Under Floor Heating – Full Encapsulation
- Smooth, Laitance Free Surface Finish
- Reduced Drying Times
- CE Marked
- EN 13454-1: 2004
- Big Bags and Bulk

Field Of Application

CASEA RADDIPLUS NA Rapid Screed is suitable for floors in homes, offices, public buildings and places exposed to similar loads. CASEA RADDIPLUS NA Rapid Screed may be applied as a levelling screed directly onto a load bearing floor, unbonded on a separating barrier (polythene), as a floating floor and is particularly suited in conjunction with underfloor heating or cavity floors. CASEA RADDIPLUS NA Rapid Screed should be covered with a floor finish such as tiles, linoleum, parquet, cork or carpet. If a cement based adhesive or smoothing compound is required the surface of the screed must first be sealed, using an appropriate acrylic primer/sealer.

Working Instructions

Light ventilation in the work area is necessary, however windows and openings must be closed sufficiently to avoid draughts during and after application. Indoor and floor temperature should exceed +5°C during and after application and for one week after that.

Substrate

CASEA RADDIPLUS NA Rapid Screed is designed for use as a bonded thick levelling screed on concrete, as a floating screed over thermal or acoustic insulation, or as an unbonded screed on top of a plastic membrane.

Preparation and Priming

The substrate should be clean, dry, free of dust, grease and other impurities that might prevent adhesion. If it is a large area the surface should be treated by mechanical preparation by grinding or shotblasting. For bonded screeds, the substrate must be dry and should be primed with a

suitable primer. If CASEA RADDIPLUS NA Rapid Screed is to be applied on plastic sheeting or as a floating floor, a flexible perimeter insulation of minimum 10mm should be formed around the perimeter (walls, columns, etc.). Edge lengths > 30m require 20mm edge insulation.

Mix Design

Sand should be of an approved quality and grading. Trials should always be carried out to optimize the mix design before work commences. The proportion of binder required is 600 – 650kg/m³. Sufficient sand is required to produce 1m³ of screed, with sufficient water added to produce a flow spread diameter of 230-250mm. A typical starting point mix design is 600kg Binder, 1200kg sand (dry weight) and 330L water per m³. All materials should be adequately mixed to ensure full dispersion of materials without lumps.

Application

Pumping is carried out in sections so that a wet edge is maintained. A wide steel tampering bar is used to assist the levelling process. When applied bonded the minimum thickness of CASEA RADDIPLUS NA Rapid Screed should be 20mm, over underfloor heating this should be a minimum of 25mm over the pipes (35mm over insulation board).

Storage

6 months under dry, protected conditions.

Disposal Considerations

13.1 Waste treatment methods: Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Uncleaned packaging: Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

Underfloor Heating Commissioning

< 35°C water/manifold temperature for 24 hours @ 1.7% CM residual moisture content.

Safety

Classification according to Regulation (EC) No 1272/2008: **Hazard pictograms:** GHS05. **Signal word:** Danger. **Hazard-determining components of labelling:** Cement, portland, chemicals. All standard precautions for the handling of construction materials/chemicals must be taken. See CASEA Health and Safety Data Sheet for further detailed information.

Safety

Hazard Statements

H318 Causes serious eye damage.

Precautionary Statements

P102 Keep out of reach of children.


P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

Technical Information

Screed Specification EN 13813: 2002	
Maximum Thickness	75mm
Minimum Thickness	Bonded: 20mm Unbonded: 30mm Domestic: 35mm Commercial: 40mm Over Underfloor heating Pipes: 25mm (BS 8204-7)
Use	Internal use only
Compressive Strength (28 days)	> 20 N/mm ² > 25 N/mm ² > 30 N/mm ²
Flexural Strength (28 days)	> 4 N/mm ² > 5 N/mm ² > 7 N/mm ²
Bulk Density	approx. 1.3 kg/dm ³
Flow Rate	230 – 250mm (slump flow - Hägermann cone)
Light foot traffic	approx. 8 hours depending on drying conditions
Partial load-bearing capacity	approx. 36 hours / 1.5 days depending on thickness and drying conditions
Pot life (open time as mortar)	30 - 45 minutes depending on ambient conditions
Reaction To Fire	A1 Non-Combustible
Packaging	Big bags and bulk
Residual Moisture Content (dependent on temperature and site conditions)	< 1.3% CM for timber, parquet flooring < 1.7% CM for all other floor coverings Contact SMET technical team for thicknesses over 75mm

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06 CASEA-207 068 EN 13454-1: 2004, Calcium sulphate binder CAB 30 Calcium sulphate binder for use internally in buildings	
Reaction to fire	A1
pH value	≥ 7
Strength Class	CAB30
Calcium sulphate content	≥ 85 %
Shrinkage and swelling	≤ 0.2 mm/m

*NPD = No Performance Determined

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