




Pos.	Performance/description	Images
	<p>Electrical module-based 230V low-temperature panel heating system on clay- dry construction basis Designed for the ideal and energy efficient heating of a room and the achievement of a physiologically perfect interior climate according to DIN ISO 7730, for ceilings and sloping roofs.</p> <p>Minimum structural height: 52mm including wooden substructure Operating weight: up to max. 70 Kg/m² including wooden substructure</p> <p>System design: 1.Substructure</p> <p>Consisting of 22mm ESB-Plus P5 or OSB3 chipboards, to be handled via tongue and groove connection. The substructure can be attached directly to the ceiling or sloping roof using suitable fixing materials such as Fischer frame-plugs SXR 8x80T or SXR 8x100T or nail anchors 6x30/50, attached to suitable wooden support laths (70/50mm) or bolted to a statically sufficient metal substructure using Nonius ceiling suspensions or self-supporting metal carriers. The adjoining wall surfaces are to be decoupled using suitable edge insulation strips, preferably wood fiber material. Operating weight: up to max. 14 Kg/m²</p> <p>2. Clay-construction panels</p> <p>Heating surface cladding with pre-manufactured clay- system-heating and compensation panels. Proportional percentages of the system- heating panels result from heating load requirements of the respective rooms.</p> <p>Panels are to be layed onto cross joints and fastened with stainless-steel load distributors and stainless-steel screws.</p> <ul style="list-style-type: none"> - Clay- system heating panels according to DVL TM 07 MHK I (type A) consisting of sorption capable, capillary active and highly condensed clay- dry construction panels with press-fitted glass fiber mesh and pre-manufactured single sided groove-shaped form for installation of system- coordinated heating cables Panel thickness: approx. 25mm Max. cable length: 11,8m/m² Construction material class: A1 Flexural strength: > 3 N/mm² Sorption grade: WS III according to DIN 18947 Thermal conductivity: > 1 W/mK Water vapour diffusion resistance: < $\mu = 10$ Operating weight: up to max. 40 Kg/m² - Lehm-Systemausgleichsplatten gem. DVL TM 07 MHK I (Typ A) mit beidseitigem Glasfaser-Gittergewebe und hohem Anteil an Fasermaterialien aus Hanf oder vergleichbaren Naturprodukten. Leichtbauplatten zur Auskleidung der heizkabelfreien Flächen. Panel thickness: zirka 25mm Bulk density: < 900 Kg/m³ Construction material class: A2 Flexural strength: > 2 N/mm² Sorption grade: WS III gemäß DIN 18947 Thermal conductivity: < 0,3 W/mK Water vapour diffusion resistance: < $\mu = 10$ Operating weight: up to max. 17 Kg/m² 	   

3.Resistor cable

Pre-manufactured electrical resistor cable in accordance to IEC 60800 (ed.3):2009-07, consisting of:

- solid heating conductor with insulation cover
- solid copper return conductor with insulation cover
- solid copper FI-protective conductor and
- aluminum coating with exterior insulation

Seamless and completely water-proof transition to the 4m long connection cable (PTC thermistor). Free from electromagnetic fields due to closely spaced flow- and return conductors with opposite electrical power flow directions (twin-conductor system).

Additional aluminum coating with resilient heat resistant and hardly flammable synthetic material for shielding magnetic fields.

For use in combination with the suitable thermostat according to DIN 60730, protection grade II with related ceiling sensor.

Heating cable diameter: 5mm

Heating output: ~ 12Watt/m

Max. temperature: 40°C (capacity crash protection according to EN 50559)



4.Clay- upper plaster with plaster reinforcement material

Clay- upper plaster according to DIN 18947, Dry ready-mix for single-layered application with 7mm of plaster reinforcement material inlay.

Plaster coating thickness: min. 5mm / max. 8mm

Grain size: < 2mm

Fiber components: Miscanthus up to 10mm

Construction material grade: A1

Strength category: SII

Adhesive strength: > 0,15 N/mm²

Flexural strength: > 1 N/mm²

Sorption grade: WS III

Thermal conductivity: > 1 W/mK

Water vapour diffusion resistance: < μ = 10

Operating weight: up to max. 15 Kg/m²

5.Clay color

Spray- and paintable ready-mix according to DVL TM 06 for the creation of a colored clay surface and significant reduction of acoustic noise (αs=0,2) through the use of marble powder (grain size < 1mm).

Pos.	Leistung/Beschreibung	Bilder
	<p>Thermostat</p> <p>Programmierbarer Thermostat inklusive Fernfühler zur Regelung der System- bzw. Abstrahltemperaturen. Mit beleuchtetem Display, automatischer Sommer-Winterzeitschaltung, Optimum-Start-Funktion, abnehmbarem Bedienteil, Urlaubsfunktion mit Datumseingabe, Energieverbrauchsanzeigen und verschiedenen Bediener-sprachen. Heizungsunterbrechung nach Norm EN 50559 einstellbar. Installation durch einen Elektrofachmann.</p> <p>Spannungsversorgung: 230 V AC 50 HZ (207...253 V)</p> <p>Wählbarer Temperaturbereich: 10 °C bis 40 °C; in 0,5 °C Schritten</p> <p>Anzeige Temperaturbereich: 0,1 °C Schritte</p> <p>Ausgang: Relais-schließer, potenzialgebunden</p> <p>Schaltstrom: 10 mA... 16(4) A *; 230 V~</p> <p>Ausgangssignal: PWM oder 2-Punkt (Ein/Aus)</p> <p>PWM-Zykluszeit: einstellbar</p> <p>Hysterese: einstellbar (bei 2-Punkt)</p> <p>Minimale Schaltzeit: 10 Minuten</p> <p>Leistungsaufnahme: ~ 1,2 W</p> <p>Ganggenauigkeit: < 4 Min / Jahr</p> <p>Gangreserve: ~ 10 Jahre</p> <p>Fernfühler: AT-F100-1 Länge 4 m, verlängerbar bis 50 m</p> <p>Umgebungstemperatur: Betrieb 0 °C bis 40 °C (ohne Betauung)</p> <p>Lagerung: -20 °C bis 70 °C (ohne Betauung)</p> <p>Stoßspannung für Bemessung: 4 kV</p> <p>EMV-Störaussendungsprüfung: 230 V Spannung, 0,1 A Strom</p> <p>Schutzart: IP 30</p> <p>Schutzklasse: II (siehe „Installation“)</p> <p>Softwareklasse: A</p> <p>Verschmutzungsgrad: 2</p> <p>°C für Kugeldruckprüfung: 75 ± 2 °C</p> <p>Energieklasse nach EU 811/2013, 812/2013, 813/2013, 814/2013: IV = 2%</p> <p>Maße: Bedienteil 50 x 50 mm Blendrahmen 80,5 x 80,5 mm Einbautiefe 42 mm Auftragsstärke 17,5 mm Fühlerkopf 20 mm x Ø 9 mm</p> <p>Bei Aufputzmontage: Gira AP-Gehäuse 1f.rws-g 006103</p> <p>Die Positionierung und der Einbau des Fernfühlers erfolgt gemäß den Vorgaben des Systemherstellers!</p>	