**LAMELLA MATS**

**KNAUF INSULATION POWER-TEK LM 550 ALU**

**Type of Insulation:**

Mineral wool mat with lamellas for the insulation of industrial installations: components of industrial plants, district heating pipes, walk-on piping, heat storage tanks, installation without sub-construction.

The lamella mat must have certifications and CE marking in accordance with EN 14303.

**Facing:**

The lamella mat shall have a glass fibre reinforced aluminium foil on one side.

**Description:**

Mineral wool lamella mat with tear-resistant, glass fibre reinforced aluminium foil bonded to one side of rock mineral wool strips (lamellas). The rock mineral wool lamellas shall be perpendicular to the contact surface in order to provide a high compressive strength, while keeping flexibility. The mineral wool lamella mat shall use a mainly bio-based binder, e.g. Ecose Technology, contain no added formaldehyde and be certified under Eurofins Gold Indoor Air Comfort quality standards or equivalent.

**Main characteristics:**

1. Eurofins

Certification Indoor Air Comfort: Gold Standard

2. Fire

The lamella mat shall be non-combustible with the following reaction to fire according to   
EN 13501-1: A1.

3. Thermal

The thermal conductivity λ-value shall be according to EN 12667:

0,043 W/(mK) at 50 °C

0,052 W/(mK) at 100°C

0,076 W/(mK) at 200 °C

0,109 W/(mK) at 300 °C

0,154 W/(mK) at 400 °C

0,211 W/(mK) at 500 °C

0,256 W/(mK) at 550 °C

The maximum service temperature is measured according to EN ISO 18097 and shall be minimum   
550 °C.

4. Chemicals

AS quality, according to EN ISO 12624: content of chlorides less than 10 ppm.

5. Mechanical properties

Compressive strength σ10 shall be ≥ 10 kPa, according to EN ISO 29469.

6. Density

Density will be 60 kg/m3, according to EN ISO 29470.

6. Dimensional tolerances

The dimensional tolerances class shall be T4, according to EN 14303.

7. Other certifications

Keymark, RAL, M1.

8. Other requirements

Water vapour diffusion resistance, according to EN 12086: Sd ≥ 200 m.

Water absorption, according to EN ISO 29767: maximum 1 kg/m².

Melting point of fibres, according to DIN 4102-17: ≥ 1000 °C.

**EN designation code:**

MW-EN14303-T4-ST(+)550-CS(10)10-WS1-MV2-CL10

**Standard Dimensions:**

Lamella mat length shall be: from 2400 mm to 10000 mm, depending on the thickness.

Lamella mat width shall be 500 or 1000 mm.

Lamella mat thickness shall be: 20, 25, 30, 40, 50, 60, 70, 80, 90, 100, 120 mm.