

# Test Report according to VDI 2055

## Ü2.013.1-04a/08



Summary of results in accordance with section 3.3 Gütesicherung  
 Leading testing institute: Forschungsinstitut für Wärmeschutz e.V. München (FIW)

**Test requested by:** PAROC GmbH, Hamburg  
**Manufacturer:** Werk T  
**Designation of material:** PAROC Lamella Mat 50 AluCoat

**Type of material:** Resin-bonded stone wool lamellas glued on one side to reinforced aluminium foil, compression-resistant  
**Designation and properties:** Insulation designation code according to AGI-Working document Q 132: 10.03.01.50.05 refer to product datasheet (dated: 19.01.2009), thermal conductivity from 50°C to 500°C (EN 12667), AS-quality, hydrophobic  
 Fire Classification: see 4.1

**DIN CERTCO Reg.Nr.:** 6V067

**Type of control:** Surveillance contract No: U2.013/08  
**Sample taking:** By employee of the FIW in the plant T on 29.05.08  
**Goods Receipt:** No. 9697  
**Internal quality control:** On 29.05.08 the Factory Production Control was checked by an employee of the FIW München and found according to the rules.

### Results:

1. Dimensions/Density - according to EN 822, EN 823, EN 1602 (Average values)

Nominal Thickness mm	Nominal Length mm	Nominal Width mm	Thickness mm	Load kN/m <sup>2</sup>	Length mm	Width mm	Area-related mass g/m <sup>2</sup>	Density of insulant kg/m <sup>3</sup>
40	6000	1000	41	0.25	5988	1000	81 *)	45.5 *)
60	4000	1000	62	0.25	4028	1000	81 *)	48.3 *)

\*) of facing or supporting material, \*) referred to measured thickness

2. Thermal conductivity according to EN 12667:

Nominal thickness 60 mm : density 49.0 kg/m<sup>3</sup> (cf. FIW test report F.3-063/08)

Nominal thickness 40 mm : density 47.0 kg/m<sup>3</sup> (cf. FIW test report F.3-091/08)

Nominal thickness mm	Temperature *) °C	50	100	150	200	250	300	350	400	500
60	Thermal conductivity W/(m·K)	0.045	0.054	0.067	0.085	0.106	0.131	0.161	0.194	0.274
40	Thermal conductivity W/(m·K)	0.045	0.055	0.068	0.086	0.107	0.132	0.161	0.194	0.270

\*) In case of temperature differences < 50 K the given temperature corresponds to the arithmetical average of warm side and cold side temperature!

3. Behaviour at higher temperatures: (maximum service temperatures)

3.1 Test method EN 14706: As regards the test according to section 7.4.1 of the AGI-working document Q132 during 72 h at a one-sided temperature exposure of 500 °C and under a load of 0.5 kN/m<sup>2</sup> the decrease in thickness did not exceed 5 %. The mean apparent density was 52 kg/m<sup>3</sup>.

3.2 Self Heating: no internal self heating

4. Further properties	
4.1 Fire behaviour: EN 13501-1 A1	4.4 Airflow resistance EN 29053 Nom. thickness---/--- mm: ---/--- Pa·s/m <sup>2</sup>
4.2 Ignition loss EN 13820: 3.5 - % in mass	4.5 Hydrophobic property EN 1609: 0.04 kg/m <sup>2</sup> after 24h (requirement ≤ 1.0 kg/m <sup>2</sup> acc. to Q132, section 5.11)
4.3 AS quality: Chloride content EN 13468: 3.3 mg/kg (requirement according to AGI Q132:2006: ≤ 10 mg/kg)	4.6 Compressive strength EN 826: 19 kPa

5. Other data:

5.1 Shot content: 0.2 % regarding a mesh size of 0.5 mm and 3.1 % regarding a mesh size of 0.25 mm.

5.2 Sulfid content: -----

**Remarks:** The mineral wool product complies with the characteristics required by the AGI insulation designation code. The basis of the calculation of the heat loss are the nominal values according to the product data sheet. The given values of the thermal conductivity only apply to the measured samples.

**Comment:** As regards the characteristics tested, the stone wool product fulfils the standards determined by the VDI-AG "Gütesicherung" (quality control) in the guidance papers and their supplements.

Gräfelfing, 20.01.09

Head of Department

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The only valid document is the one in German and not this translation. Test results only refer to test objects. The prior written consent of our Institute is required for any publication or reference concerning parts of this report.