

Test report

Nr. 09153-A

Outgassing of thermal insulation materials in solar-thermal flatplate collectors with antireflective coated glass

ordered by :

FIBRAN S.A
6 km Thessaloniki – Oreokastro
A.C. 56010, P.O.Box: 40306
Thessaloniki, Greece
represented by Mrs. Stella Chadiarakou

Manufacturer :

FIBRAN S.A
6 km Thessaloniki – Oreokastro
A.C. 56010, P.O.Box: 40306
Thessaloniki, Greece

Designation of the test sample:

FIBRANgeo H-050

Description of the sample :

mineral wool
no coating
specific weight = 60 kg/m³ *
Thickness approx = 40 mm *
(*=measured by SPF, **= from customer)



Photo of the test sample

Test temperature :

220°C

Test date :

Beginning at 30.4.2009, according to test instruction , see www.solarenergy.ch

Evaluation :

The tested mineral wool FIBRANgeo H-050 (delivery 23.4.2009) is suitable for single glazed, ventilated solar thermal flat plate collectors with antireflex glass with stagnation temperatures up to 220°C. No visible condensate precipitation and little performance changes are to be expected, .

Limitation of liability :

The use of our services occurs generally at one's own risk. SPF is not responsible for damages, caused by the use of this test report and the included informations.

Rapperswil, 5.4.2012


Felix Flückiger

Appendix to Test report No. 09153-A

Results in detail :

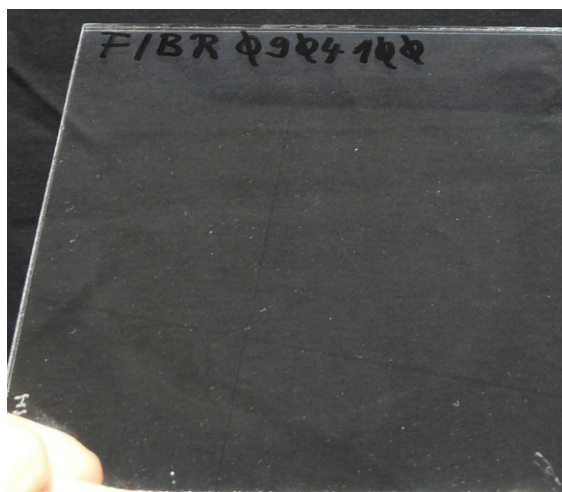
The mineral wool plate FIBRANgeo H-050 (delivery 23.4.2009) is not leading to visible precipitation at the condensation trap (see following pictures).

The change of the solar transmission is within the acceptable range (that means less than 0.015; see following table and diagrams).

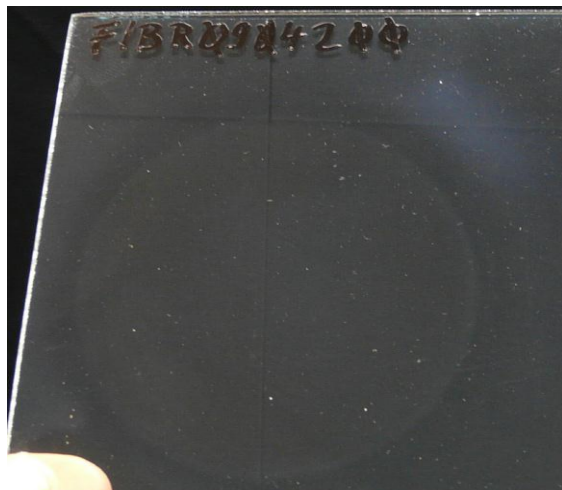
sample	solar transmission		
	referenz	after exposition	change
1	0.930	0.921	-0.009
2	0.930	0.926	-0.004

Table 1 : measurements of solar transmission

Pictures of the condensation trap after 150h @ 220 °C :



Sample 1 :



Sample 2 :

