SPF Solartechnik Prüfung Forschung

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Test report Nr. 08125

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

ordered by :

Saint Gobain Cristaleria SA.
Division Aislamiento
Avda. del vidrio s/n
E-19200 Azuqueca de Henares - Guadalajara

Manufacturer :

Saint Gobain Cristaleria SA.
Division Aislamiento
Avda. del vidrio s/n
E-19200 Azuqueca de Henares - Guadalajara

Designation of the test sample:

Saint Gobain PE-300 C

Description of the sample :

mineral wool
no coating
specific weight 30 kg/m^3
Thickness approx. 60 mm

Photo of the test sample

Test temperature :

220°C

Test date :

Beginning at 27.2.2008, according to test instruction , see www.solarenergy.ch

Evaluation :

The tested mineral wool Saint Gobain PE-300 C (delivery 22.2.2008) is partly suitable for single glazed, ventilated solar thermal flat plate collectors with antireflective coated glass with stagnation temperatures up to 220°C. Visible condensate precipitation is to be expected, but it is not resulting in significant performance changes.

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, 5.3.2008 Felix Flückiger

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Appendix to Test report No. 08125

Results in detail :

The mineral wool Saint Gobain PE-300 C (delivery 22.2.2008) leads to visible precipitation at the condensation trap (see following pictures).

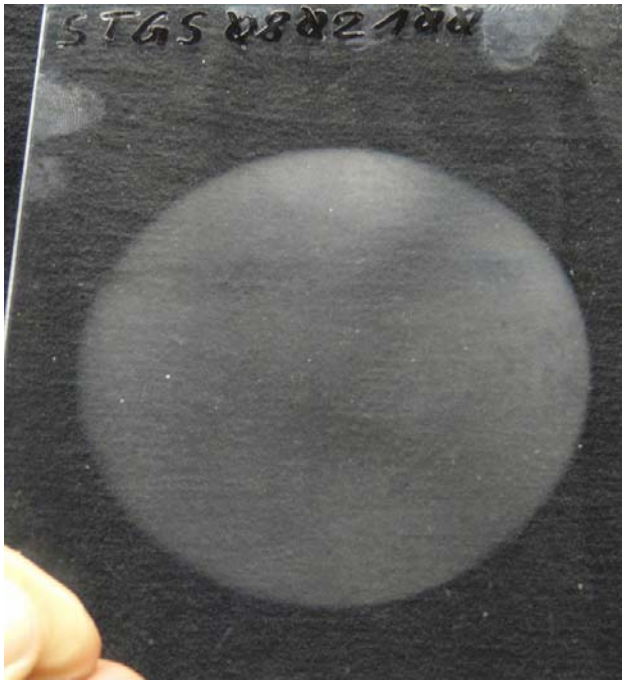
The change of the solar transmission is within the acceptable range (that means less than 0.015; see following table and diagrams).

sample	solar transmission		
	referenz	after exposition	change
1	0.930	0.929	0.001
2	0.931	0.927	0.004

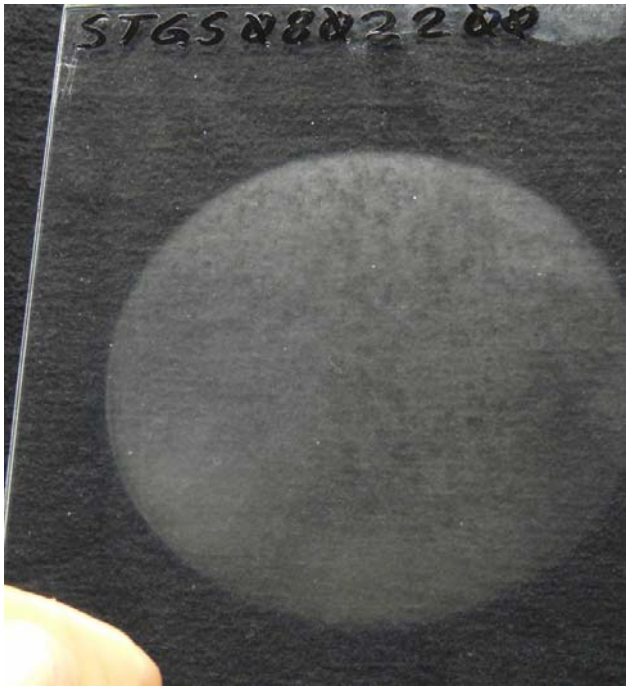
Table 1 : measurements of solar transmission

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

Sample 1



Sample 2



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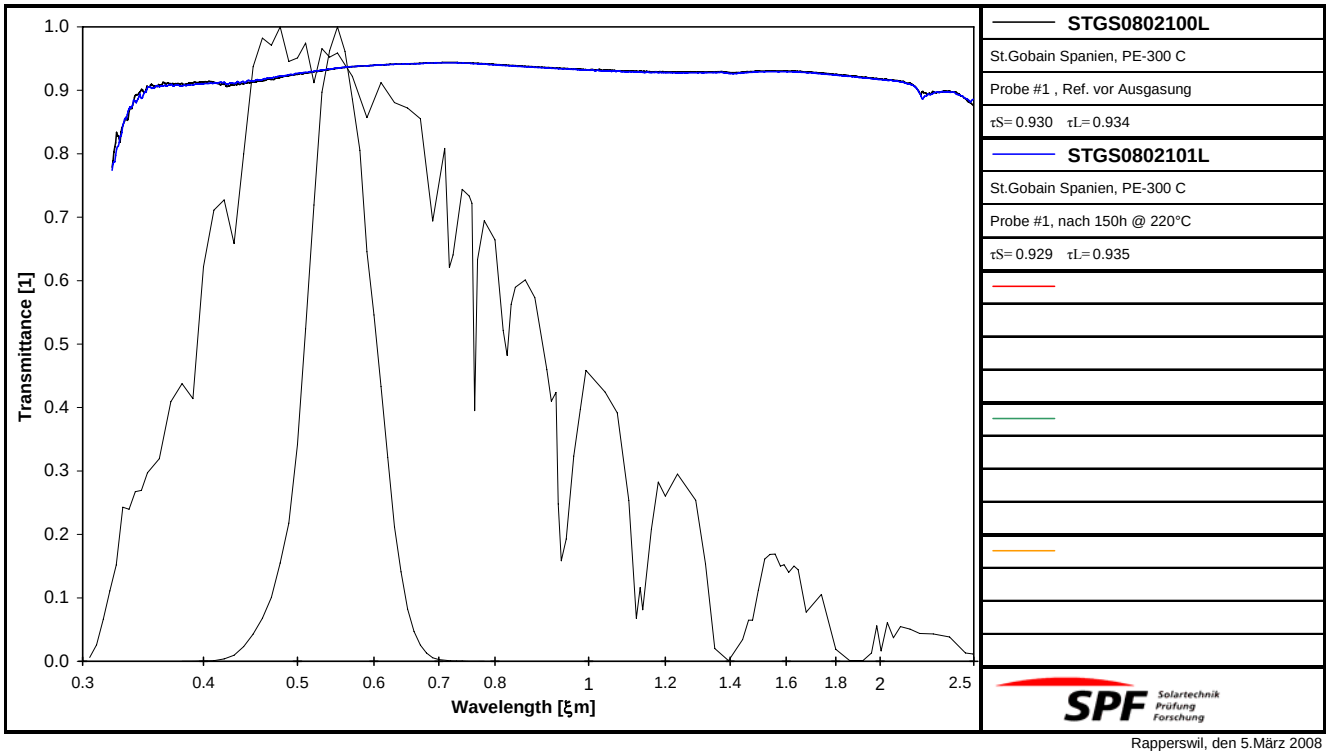
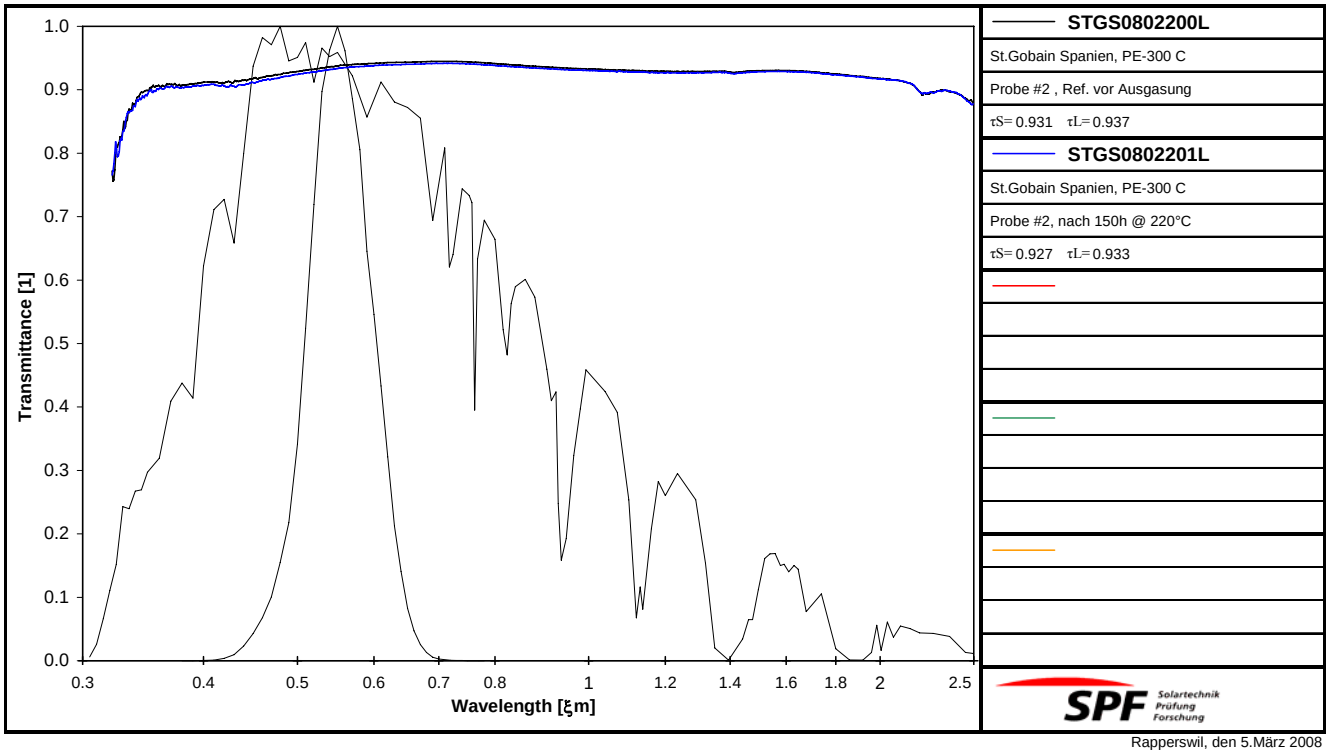
Spectral transmittance of the condensation trap, before and after testing

PE-300 C , Sample 1



Rapperswil, den 5.März 2008

PE-300 C , Sample 2



Rapperswil, den 5.März 2008