

Test report

Nr. 07107

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 PE400 C Velo Negro

Description of the sample :

mineral wool
with black coating
specific weight 40 kg/m³
Thickness approx. 25 mm



Photo of the test sample

Test temperature :

220°C

Test date :

Beginning at 8.2.2007, according to test instruction, see www.solarenergy.ch

Evaluation :

The tested mineral wool Saint Gobain PE400 C Velo Negro (delivery 8.2.2007) is only partly suitable for single glazed, ventilated solar thermal flat plate collectors with antireflective coated glass with stagnation temperatures up to 220°C. No condensate precipitation resulting in significant performance changes is to be expected. But markedly visible precipitation is 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.

Felix Flückiger

Rapperswil, 26.2.2007

Appendix to Test report No. 07107

Results in detail :

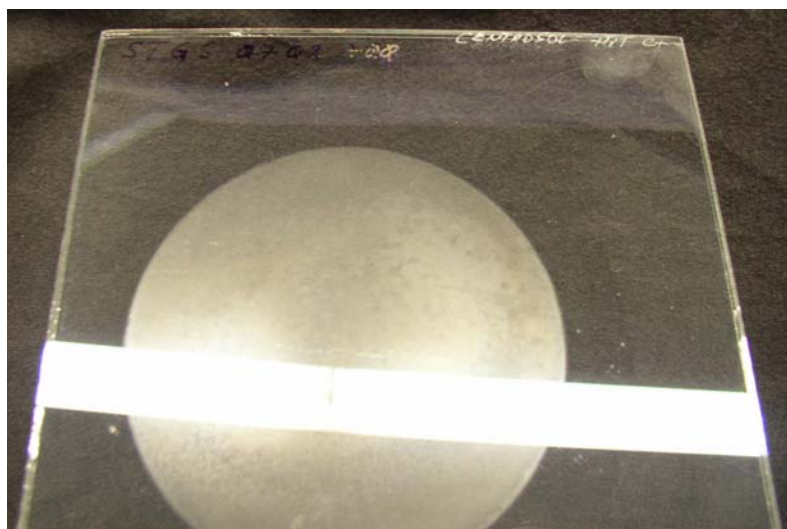
The mineral wool Saint Gobain PE400 C Velo Negro (delivery 8.2.2007) leads to markedly visible precipitation at the condensation trap.

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

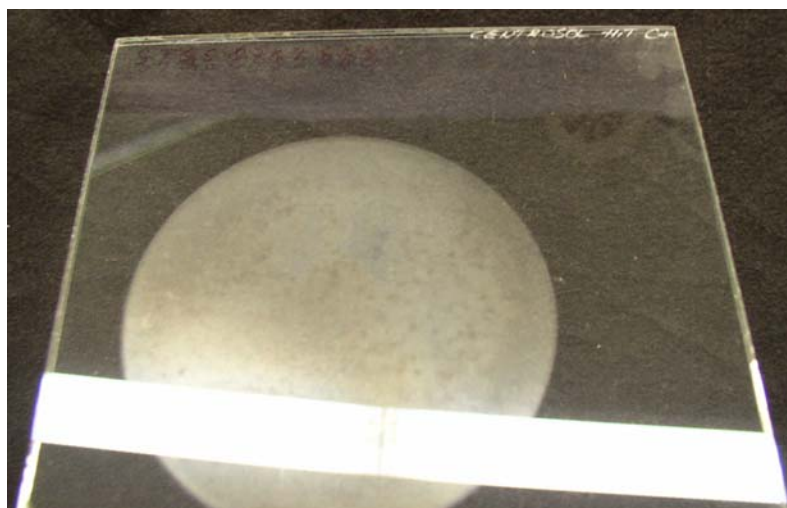
sample	solar transmission		
	referenz	after exposition	change
1	0.930	0.921	0.009
2	0.929	0.920	0.009

Table 1 : measurements of solar transmission

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



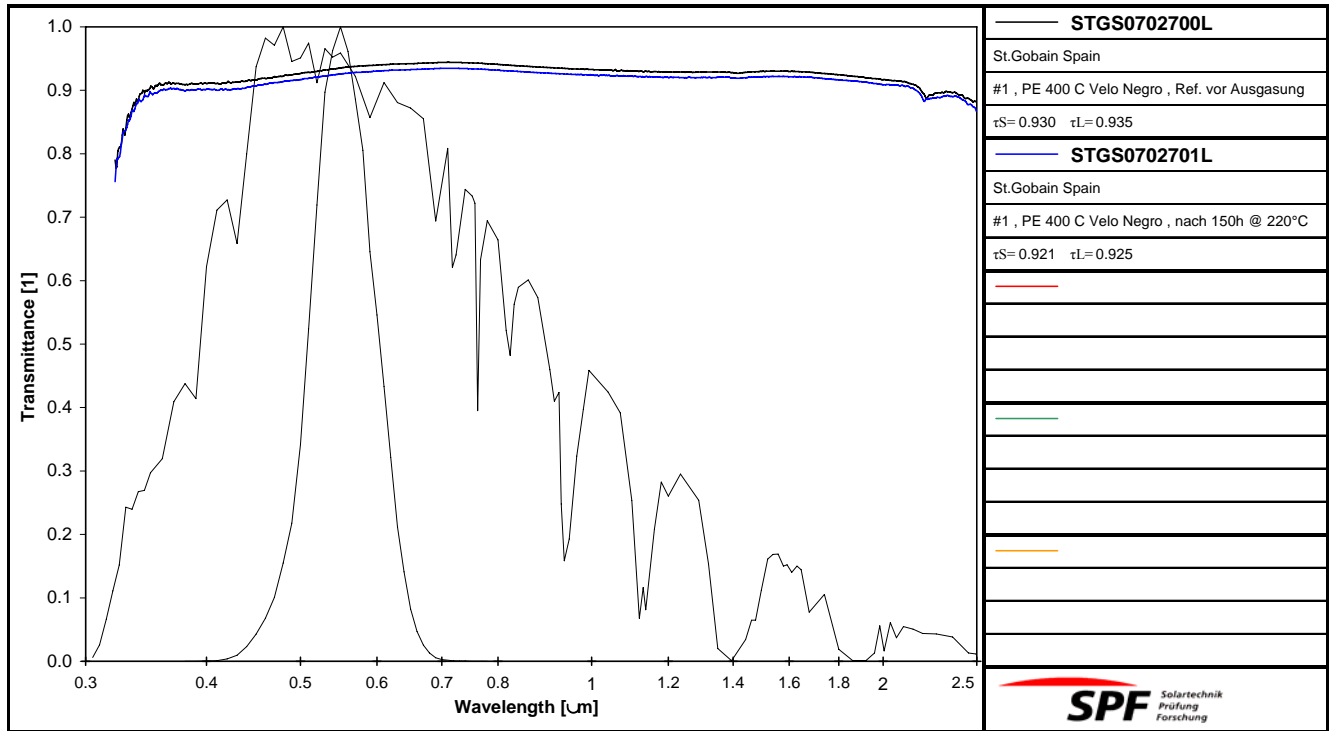
Sample 1 :



Sample 2 :

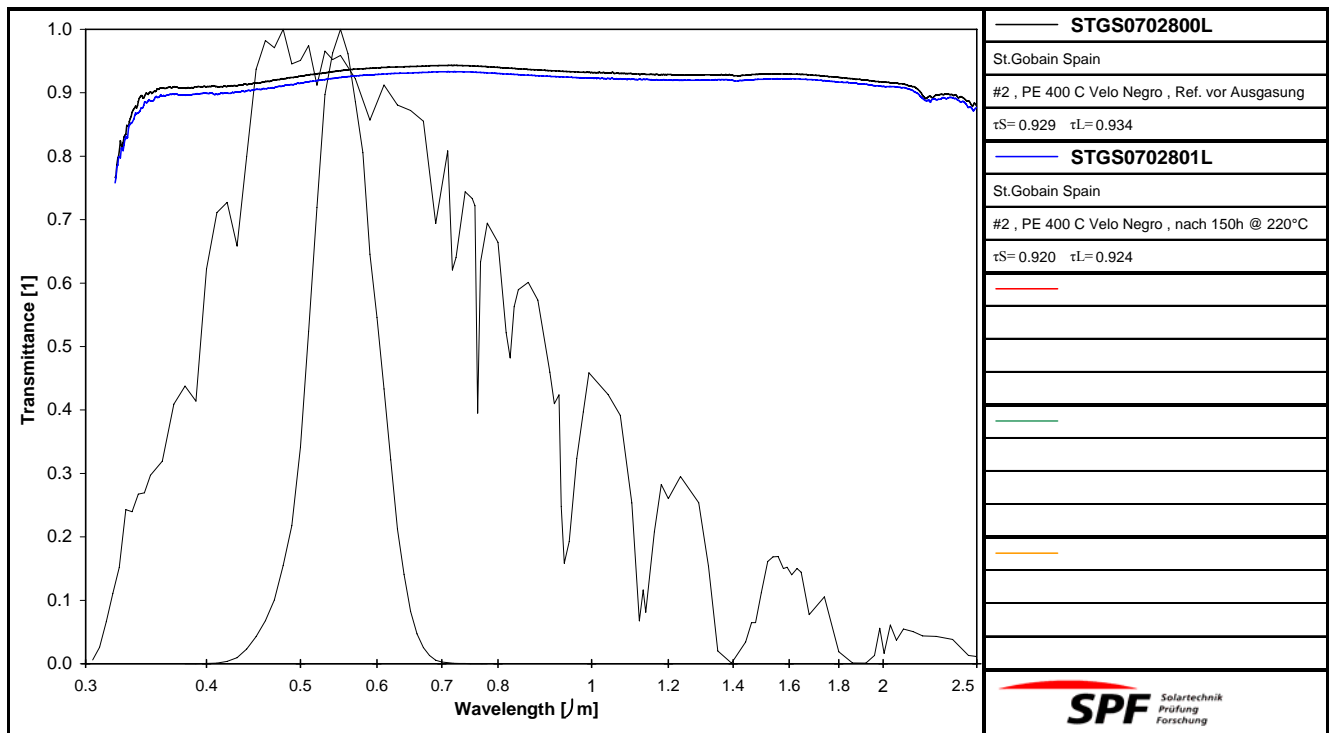
Spectral transmittance of the condensation trap, before and after testing

PE400C Velo Negro , Sample 1



Rapperswil, den 22.Februar 2007

PE400C Velo Negro , Sample 2



Rapperswil, den 22.Februar 2007