

# Price list – SPF Testing

## Optical measurements

	<b>EUR</b>
<b>Transparent Covers, Glazings</b>	
Transmission measurement I ST (solar thermal, max. sample size 300 x 200 mm)	
Transmission spectrum 0.29 $\mu\text{m}$ – 2.5 $\mu\text{m}$ , determination of transmittance .....	570
Transmission measurement II ST (solar thermal, samples up to collector size)	
Transmission spectrum 0.30 $\mu\text{m}$ – 1.7 $\mu\text{m}$ , determination of transmittance .....	570
Transmission measurement I PV (photovoltaic, max. sample size 300 x 200 mm)	
Transmission spectrum 0.29 $\mu\text{m}$ – 2.5 $\mu\text{m}$ , determination of transmittance .....	1'600
Incidence Angle Modifier ST (IAM), solar thermal	
Measurement of IAM (0° - 70°).....	570
Incidence Angle Modifier PV (IAM), photovoltaic	
Measurement of IAM (0° - 70°).....	570
Glass base package ST, solar thermal	
Glass base package I ST (Transmission spectrum I ST + IAM-ST) .....	1'030
Glass base package II ST (Transmission spectrum II ST + IAM-ST) .....	1'030
Glass base package PV, photovoltaic	
Glass base package I PV (Transmission spectrum I PV + IAM-PV).....	2'070
Certification of solar glass (SPF procedure)	
for solar thermal application, SPF certification scheme .....	3'440
for PV application, according to the SPF certification scheme .....	4'480
Combo package for solar thermal and PV application.....	5'740
<b>Absorber, Absorber coatings</b>	
Absorptance, Reflectance (maximum sample size 300 x 200 mm)	
Spectrally resolved 0.30 $\mu\text{m}$ – 19 $\mu\text{m}$ , Determination of $\alpha$ and $\epsilon$ .....	570
<b>Others</b>	
Thermography	
Thermographic pictures: camera + operator (per hour).....	200
Spectroscopy, wavelength range 0.29 $\mu\text{m}$ – 2.5 $\mu\text{m}$	
Tailor made measurements .....	on request
Light-scattering measurement for all surfaces (BSDF, BRDF, BTDF)	
Standard measurement.....	570
With light trap (optional for glass).....	650

## Material tests

	<b>EUR</b>
<b>Insulations</b>	
Assessment of outgassing behaviour	
Temperature resistance (basic test).....	700
Temperature resistance + Analysis of effect on antireflective glazings .....	1'160
<b>Absorber, Absorber coatings</b>	
Assessment of ageing stability of absorber coatings, according to ISO 22975-3 (Task-X)	
Test of stability against temperature and humidity .....	10'000
<b>Compensators, Connectors, Fittings</b>	
According to the SPF certification scheme.....	2'400

## Systems, collectors and thermal storages

Collectors (EN 12975, ISO 9806, Solar Keymark, SRCC,...)	EUR
Performance according to ISO 9806 (LP) .....	3'500
Durability test according to ISO 9806 (QP) .....	5'600
Collector base package: Complete test according to ISO 9806, (LP+QP).....	6'400
Surcharge for evacuated tube collectors .....	+1'000
Surcharge for heatpipe collectors.....	+500
Surcharge for WISC collectors .....	+2'000
Surcharge for In-roof collectors with flashing .....	+800
Surcharge for PVT collectors .....	+1'800
Surcharge for large collectors .....	on request

### Systems (EN12976, Solar Keymark, SRCC,...)

#### Thermosiphon systems

Performance measurement according to EN 12976 (LP).....	6'400
Durability test according to EN 12976 (QP).....	2'600
Thermosiphon base package*: Complete test according to EN 12976, (LP+QP) .....	7'100
Combi Pack (Thermosiphon base package + Collector base package) .....	11'900
*Surcharge for non-tested collectors	
Collectors which cannot be tested separately .....	1'700
Collectors which can be tested separately .....	4'500

#### Systems for domestic hot water (SDHW)

Performance test according to EN12976 (LP).....	7'700
Durability test according to EN12976 (QP).....	2'900
SDHW Base package: Complete test according to EN12976, (LP+QP) .....	8'900
CombiPack (SDHW Base package + Collector base package).....	13'800

### Stratification efficiency of thermal storage tanks (SPF test procedure No 86)

Standard Combi Storage.....	5'800
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### Standing loss for Energy Labelling (EN 12977-3, EN 12897, EN 15322, EN 60379)

Standard Storage .....	3'000
If ordered together with stratification efficiency .....	1'300

## Impact resistance, hail testing (APIB)

Impact resistance of all materials and components of the building shell..... on request

## High snow load for PV and ST collectors (APIB)

Snow Load testing for solar thermal (up to 13'000 Pa) .....	7'000
Snow Load testing for PV modules (up to 13'000 Pa).....	9'000

## General remarks

The price list gives an overview about our standard tests and services. The available infrastructure for testing and measuring components allows for much more. Let us know about your requirements, your demands and your wishes so that we can offer a custom made solution.

The indicated prices are without VAT.

SPF reserved its right to offer services for differing prices.

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