



## FINAL REPORT on Initial Product Type Testing No. 30-8819

**Product:** Flat solar collector

**Type designation:** KPS 11 ALP

**Versions:** -----

**Customer:** R E G U L U S spol. s r.o.  
Do Koutů 1897/3  
143 00 Prague 4 - Modřany  
ID No.: 45317020

**Manufacturer:** R E G U L U S spol. s r.o.  
Do Koutů 1897/3  
143 00 Prague 4 - Modřany  
ID No.: 45317020

**Responsible employees:** Ing. Jiří Dvořák  
Ing. Petr Buzek

**Report issue date:** 2008-05-30  
**Report expiration date:** 2010-05-31

**Distribution list:** 1 copy to the Engineering Test Institute  
1 copy to the Customer



The assessment of product conformity was conducted pursuant to Act 22/1997 Coll., concerning technical requirements for products and amendments to certain acts, as amended, and pursuant to Government Regulation 163/2002 Coll., specifying the technical requirements for selected construction products, as amended.

The Engineering Test Institute conducted the activity specified above on the basis of the following documents:

- Order B-30438 of 2008-02-01
- Contract B-30438/30 of 2008-03-20

Some results stated in SZÚ Report No. 30-7270 of 2007-09-17 were used in the procedure.

## **I. Product specification**

Solar collector made by REGULUS, model **KPS 11 ALP**, serves for indirect heating of service water, additional heating of swimming pools, and keeping buildings at moderate temperatures for a transitory period using the solar energy.

It consists of the following parts:

- hardened prismatic glass (thickness 4 mm),
- copper absorber with surface finish Blue Tec ETA PLUS,
- copper connection tubes,
- rock wool thermal insulation, thickness 50 mm,
- Frame and rear sheet made of aluminium.

Basic parameters:

Type designation	Dimensions (mm)	Maximum working pressure (bar)	Max. operating temperature (°C)
KPS 11 ALP	2000x1247x95	6	120

The product falls under Item 7, Table 10 of Annex 2 to the Government Regulation concerned, with the conformity assessment procedure pursuant to Art. 7.

## **II. List of submitted technical documentation**

(pursuant to Art. 4 of Government Regulation 163/2000 Coll.)

Table 1:

Required technical documentation	Submitted documentation	Evaluation
a) Detailed product description and definition of its use within a building.	Instructions for assembly and operation Data sheets	+
b) Manufacturer identification data for imported products.	Domestic product	x
c) Reference to specified standards, technical regulations or technical certificates to be used for the assessment of conformity prior to placing the product on the market.	Drafted by SZU in Brno - see Table 2	+
d) Project and manufacturing drawings or other documentation specifying the characteristics of the product with respect to its use, technological procedure for its manufacture and use within a building, and the data concerning the technical characteristics of the product related to the essential requirements	See Clause a)	+



e)	Descriptions and explanations necessary for the understanding of the drawings and functions of the product, instructions for use within a building, warnings, danger warnings or warnings concerning restrictions of use, and instructions for safe use (must be in Czech).	See Clause a)	+
f)	Results of design and project calculations and results of any possible tests.		x
g)	Test reports or certificates.	SZÚ Report 30-7270/E of 2007-09-17. Report by Czech Technical University in Prague, Job 41-08029 a (written commitment of 2008-05-19)	+

+... The documentation is satisfactory.

x... The documentation is unnecessary for the activity ordered.

### **III. Product conformity verification**

(pursuant to Annex 1 to Government Regulation 163/2002 Coll.)

The products must be suitable for buildings; they must be (in their entirety as well as their individual components) suitable for their designed use, respecting cost-effectiveness, and, at the same time, they must fulfil the essential requirements stated below that are applicable to buildings.

These requirements must be fulfilled for the period of economically reasonable service life of the products if these undergo regular maintenance and provided that the building is influenced by regular predictable environmental conditions. The product must retain its technical characteristics through its economically reasonable service life, i.e. for a period in which the indicators of the characteristics of the building are on a level compliant with the fulfilment of the requirements stated that are applicable to buildings.



Table 2:

GR req. No.	Essential requirements	Standard or technical regulation applied	Test Report	Evaluation
1.0	Mechanical resistance	See 1.1 to 1.7		
1.1	Structure, manufacturing design	ČSN EN 12975-1:2006, Art. 5.1 (Annex B)	30-7270/T	+
1.2	Collector regulation and equipment	ČSN 06 0830:2006 Art. 7	30-7270/T	+
1.3	Material, surface finish, resistance to overheating	ČSN EN 12975-1:2006, Art. 5.1 ČSN EN 12975-1:2006, Art. 5.3.3 ČSN EN 12975-2:2006, Art. 5.3.1	30-8819/T	+
1.4	Absorber internal pressure	ČSN EN 12975-1:2006, Art. 5.3.2	30-7270/T	+
1.5	Rainwater ingress	ČSN EN 12975-1:2006, Art. 5.3.7	30-7270/T	+
1.6	Resistance of the cover and bearing structure to positive and negative pressure, resistance to external effects	ČSN EN 12975-2:2006 Art. 5.9.1, 5.9.2 ČSN EN 12975-1:2006, Art. 5.3.8 ČSN EN 12975-2:2006, Art. 5.4	30-7270/T	+
1.7	External thermal impact, internal thermal impact	ČSN EN 12975-1:2006, Art. 5.3.5, 5.3.6 ČSN EN 12975-2:2006 Art. 5.5, 5.6	30-8819/T	+
2.0	Fire safety			0
3.0	Hygiene, protection of health and the environment			0
4.0	Safety of use	See 4.1 to 4.3		
4.1	Accompanying technical documentation	ČSN 06 0830:2006, Art. 7 ČSN EN 12975-1:2006, Art. 7.1, 7.3	30-8819/T	+
4.2	Marking	ČSN EN 12975-1:2006 Art. 7.2	30-8819/T	+
4.3	Security equipment	ČSN 06 0830:2006, Art. 7	30-7270/T	+
5.0	Noise protection			0
6.0	Energy saving and protection of heat	See 6.1 to 6.2		
6.1	Heating capacity	ČSN EN 12975-2:2006, Art. 6	41-08029 a	+
6.2	Energy efficiency	ČSN EN 12975-2:2006, Art. 6	41-08029 a	+

Evaluation:

+ Requirement fulfilled     
 - Requirement not fulfilled     
 0 Requirement does not apply to the product concerned     
 x Requirement not assessed



#### **IV. Conclusion**

It ensues from the review of the submitted technical documentation and the verifications and tests conducted that the product sample - solar collector, model KPS 11 ALP - is designed and manufactured in compliance with the essential requirements of Government Regulation 163/2002 Coll.

#### **V. List of referenced documents:**

- Order B-30438 of 2008-02-01
- Contract B-30438/30 of 2008-03-20
- Written commitment by Regulus, of 2008-05-19
- Technical materials in accordance with Chapter II (Table 1)
- ČSN EN 12975-1:2006 - Thermal solar systems and components - Solar collectors - Part 1: General requirements
- ČSN EN 12975-2:2006 - Thermal solar systems and components - Solar collectors - Part 2: Testing methods
- ČSN 06 0830:2006 – Heating systems inside buildings - Safety devices
- Act 63/2001 Coll. (Art. 429), Act 185/2001 Coll. (Art. 10), Act 477/2001 Coll. (Art. 6) and Act 34/1996 Coll. (Art. 8 to 11 and Art. 13), as amended

The persons stated below are accountable for the accuracy of the above-specified data:

**Ing. Alois Randýsek**  
Director for Certification



**Ing. Aleš Onderek**  
Director for Testing