

# Hellenic Accreditation System S.A.



## Annex to the Certificate No.02

### SCOPE of ACCREDITATION of the Solar & other Energy Systems Testing Laboratory of the NCSR "DEMOKRITOS".

Tested material/ products	Types of test/ Properties measured	Applied Standards
	Performance tests	
Non-ducted air conditioners and heat pumps (capacity up to 40000 BtuJh)	Rating tests: 1. Cooling capacity 2. Heating capacity 3. Air flow measurements <u>4. Electrical power consumption</u>	ISO 5151:1994
Flat plate glassed liquid solar collectors	Outdoor thermal performance rating tests: 1. Efficiency 2. Effective thermal capacity 3. Time constant 4. Incidence angle modifiers 5. Pressure drop	ISO 9806-1: 1994 ELOT EN 12975-2:2000 (§ 1 - 4, 6.1)
Flat plate liquid solar collectors	Outdoor qualification tests: 1. Internal pressure 2. High temperature resistance 3. Exposure 4. External thermal shock 5. Internal thermal shock 6. Rain penetration 7. Impact resistance	ISO 9806-2:1995 ELOT EN 12975-2:2000 (§ 1 - 5)

Tested material/ products	Types of test/ Properties measured	Applied Standards
Domestic solar water heating systems	Tests for system performance characterization and yearly performance prediction: 1. Performance curves 2. Temperature increase 3. Draw-off profiles 4. Mixing draw-off temperature profiles 5. Storage tank heat losses 6. Predicted energy output 7. Predicted quantity of hot water  Physical tests	ISO 9459-2: 1995 ELOT EN 12976-2:2000 (solar only)
Thermal insulation materials (with thermal resistance higher than $0.1 \text{ m}^2 \text{ K/W}$ )	Tests for determination of steady state thermal resistance: 1. Thermal resistance	ISO 8302:1991
Cellular plastics and rubbers	Tests for determination of apparent density: 1. Density	ELOT EN ISO 845:1995

Site of assessment: **Permanent laboratory premises, Aghia Paraskevi, Attiki**  
 Approved signatory: **Vassilis Belessiotis, Emmanouil Mathioulakis**

This Scope of Accreditation replaces the previous one dated 3.7.2002.  
 The Accreditation Certificate No. 02 (to **ELOT EN ISO/IEC 17025**) is valid until 31.10.2008

It is noted that the Standard ELOT EN ISO/IEC 17025 has replaced the Standard ELOT EN 45001 and the ISO/IEC Guide 25.

Athens, 1 November 2004



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