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# http://task39.iea-shc.org

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# Task 39 Exhibition of Polymeric Solar Thermal Systems

23-25 September 2013 Freiburg Germany



## **Task 39 Exhibition**

Plastics are the future key to a sustainable and cost-efficient hot water preparation around the world. Less expensive manufacturing processes and material combinations allow for the costefficient manufacturing of innovative collector designs. These are competitive to standard solutions in terms of costs, effiency and durabilty and open up possibilities for aesthetical innovations in building integration as well as low-cost systems for sun-belt regions.

On the Road to a New Generation of **Solar Thermal** 

The Solar Heating and Cooling Programme's Task 39 of the International Energy Agency assesses the applicability Energy Systems and cost reduction potential of solar thermal

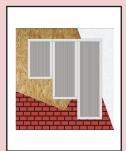
systems by using polymeric materials and polymer based novel designs. The Task 39 Exhibition showcases selected polymeric collectors and components with associated research activities to demonstrate the feasibility and potential of a new generation of solar thermal energy systems.

## **Further Reading**



Koehl et. al. Polymeric Materials for Solar Thermal Systems. Weinheim: Wiley-VCH, 2012.

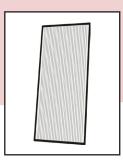
ISBN: 978-3-527-33246-5



#### **AventaSolar Collector**

- Extruded collector
- Architectural flexibility, reasonable cost, simple mounting
- Material: PPS, PC
- Available dimensions (cm): 60x205-580 (adjustable size)
- Weight: 7.7 kg/m<sup>2</sup>

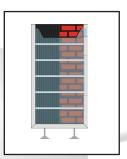
www.aventa.no



## Magen eco-FLARE PRO®

- Light-weight collector
- Pressure resistant
- Material: PP, PC
- Dimensions (cm): 100x215
- Weight: 15 kg

www.magen-ecoenergy.com



#### Lubi™

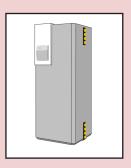
- Air collector for space heating
- High efficiency over a wide range of air flow rates
- Easy to integrate into any roof or wall structure
- Material: UV-treated PC. Al
- Dimensions (cm): 32x90

www.enerconcept.com



## **PP-Thermosiphon**

- Low cost system for sunny regions with extruded twin wall sheets
- Material: PP
- Dimensions (cm):60x160x150
- Collector surface: 1.2 m<sup>2</sup>
- Storage capacity: 65 I



## **Roth Thermotank** Quadroline

- Light-weight and spacesaving heat storage tank
- Material: Fiber/plastic composite, EPS, Cu
- Available storage capacities: 325 I. 500 I. 1000 I

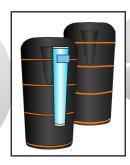
www.roth-werke.de



## Magen eco-SPARK®

- Low temperature collector for swimming pool heating and DHW
- Material: PP. PC
- Dimensions (cm): 125x232
- Weight: 13 kg

www.magen-ecoenergy.com

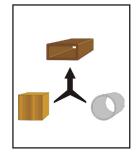


## **Consolar Storage Tanks**

SOLAR PUR: Stratified storage tank for operation with pure water CONUS 502: Pressure-less stratified storage tank for up to 10 m<sup>2</sup> collector area

- Material: EPP foam, PP, Cu
- Storage capacity: 490 I

www.consolar.de



#### **WPC Profiles**

- Wood plastic composites
- Possible application: mounting or framing
- Material: 65% Wood, 35% PP
- Water resistance, dimensional stability, natural durability

www.wood-kplus.at