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MILANO, 8/12 MAGGIO 2012
SALONE INTERNAZIONALE DELLE MATERIE PLASTICHE E DELLA GOMMA
INTERNATIONAL EXHIBITION FOR PLASTICS AND RUBBER INDUSTRIES

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Polymer-based Low Temperature Heat Exchangers:

Case studies from the EU project Thermonano

May 11th, 2012, Congress Center, AQUARIUS room

Fiera di Milano, Strada Statale del Sempione, 28, 20017 Rho (MI)

Thermally conductive polymer composites offer new possibilities for replacing metals for the construction of low temperature heat exchangers used in several applications, including power electronics, automotive and heat recovery systems, thanks to the polymer advantages such as light weight, corrosion resistance and ease of processing. This topic has been studied in the last 3 years in the frame of the European Project Thermonano: "Low-Temperature Heat Exchangers based on Thermally-Conductive Polymer Nanocomposites" by a team of two Universities (Politecnico di Torino in Italy and TU Bergakademie Freiberg in Germany) and two research centres (the French Atomic Energy Commissariat and the Polymer Institute of the Slovak Academy of Sciences) as well as three small and medium sized enterprises (Astra Refrigeranti in Italy, Nanocyl in Belgium and Onnistamp in Italy) and two large companies (Simona and SGL Carbon, both in Germany).
The main results of this project will be presented in this workshop, including technology for improving the thermal conductivity of polymers and advanced design for innovative heat exchangers. Two case studies of polymer heat exchangers will be presented along with the corresponding prototypes.

PROGRAMME:

- **9.30: G. Saracco** - *Politecnico di Torino (I)*: Thermonano: a novel approach to low temperature heat exchangers
- **9.50: A. Fina** - *Politecnico di Torino (I)* :Thermal conductivity in polymers and polymer composites; state of the art and perspectives
- **10.10: M. Mainil** - *Nanocyl SA (B):* Carbon Nanotubes for thermal conductivity
- **10.30: A. Gruss** - *Commissariat Énergie Atomique (F):* New designs for low temperature polymer heat exchangers

11.00 – 11.30: Coffee break and networking

- **11.30: M. Franz** – *SGL Carbon Gmbh (D):* Compression Moulding of heat exchanger surfaces
- **11.50: A. Goria** – *Onnistamp Srl (I):* Injection Moulding of heat exchanger surfaces
- **12.10: G. Paoli** – *ASTRA Refrigeranti SpA (I)* and **M. Franz** - *SGL Carbon Gmbh (D):* The experience of ASTRA and SGLC: presentation of polymer heat exchangers prototypes

12.30: Closing of the event

Participation to the meeting is free.

Registration is required at: elena.pertusato@polito.it

For further information, please contact alberto.fina@polito.it or visit www.thermonano.org