

S-TEAM Lab Collaborated in EU-Funded Research Program aimed at curing resins by microwaves

(Press Release, 11-March-2012)

S-TEAM Lab assisted in starting an ambitious European project aiming at curing resins by microwave energy and contributed to its successful kick-off. Although after about a year's participation the company's commercial priorities have changed, forcing us to officially retire from the project, we are still keenly following its progress and prepared to help with our experience and technology. The basic information on the project is below. The project official web page is www.macrtm.eu.

Systems for Curing Resins by Microwaves

AIMPLAS is coordinating the European project **MAC-RTM**, which is funded by the European Union under the Seventh Framework Programme.

The project began on November 1st, in a meeting in AIMPLAS with the representatives of the 9 partners of the consortium.

The project MAC-RTM will cover the development of an innovative system for curing resins through microwaves. This promising technology will be optimized by using powerful simulation tools of filling and interaction between the electromagnetic field and the resin.

The project MAC-RTM will develop an integrated, technically innovative, ecological and economically feasible system.

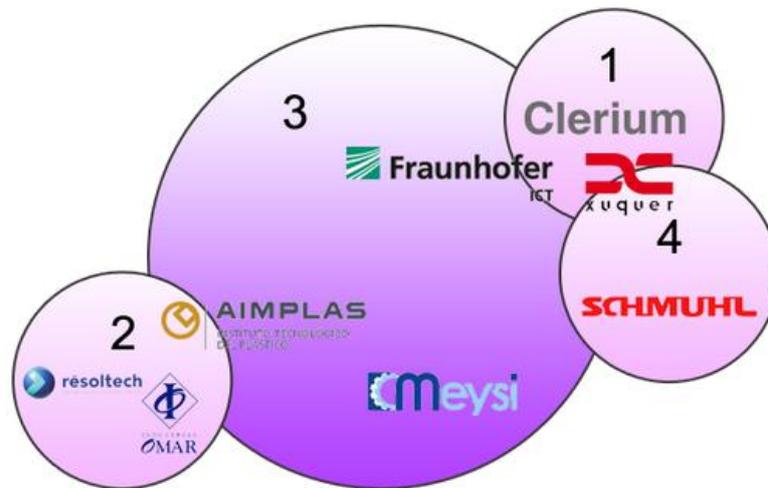
The developments in the project MAC-RTM will allow the adaptation to resins processed by RTM and RTM light in order to produce medium-volume components with the following advantages:

- Reduction of the cycle time by 40 %, leading to increase productivity and efficiency.
- Decrease energy consumption by 70 %.
- Reduce styrene emissions by 90 % in comparison with open-mould processes.
- Increase polymerization level by 100 %.
- Reduce mould costs by 30 %.
- Reduce material usage, since parts over-sizing is not necessary.

The research has duration of 2 years, being its completion expected for October, 2013. The project of the Capacities programme "Research for the Benefit of SMEs", has a budget of nearly € 1.1 million and its consortium consists of partners from Holland, Germany, France, Slovakia, and Spain.

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Project structure is schematically depicted in the following picture:



1. Specification of a model part
2. Assessment of resins for alternate curing technology during RTM and RTM-Light processes.
3. Development and optimisation of the alternate curing technology
4. Industrial sale of the new technology

The investigation leading to these results has received funding by the EU Seventh Framework Programme (PM7/2007-2013) under grant agreement no. 285775.

The information reflects the vision of the consortium of MAC-RTM and is not linked to the EC.

