

San Giorgio Su Legnano, December 2013

## ICMA and SONAE present advances in natural fibre compounding technology at Compounding World Forum 2013

The World Forum on Compounding organized by AMI plastics in Philadelphia last December captured the state-of-the-art in addressing key issues related to the compounding field. So it was the perfect event to present recent technical advances developed in our laboratory concerning the processing technology of compounds reinforced with natural fibres. The research and development work, was presented in conjunction with industry partner Sonae Industria, a Portuguese conglomerate. It refers to an innovative product / technology produced and marketed by Sonae under the commercial name, Woodforce™, that aims at a breakthrough in the world of natural fibre reinforcements.

The advantages of the new wood fibre are many including superior performance compared to standard wood fibre and even fibre glass on mechanical characteristics, weight savings and scratch resistance. This is in addition to competitive costs.

The compounding trials run in the ICMA's laboratory on a co-rotating 60 mm extruder of the MCM class were executed by mixing the Woodforce fibre with polypropylene at different output and screw configurations. We optimized the operating conditions of the compounding lines as well as screw configuration design. Results shown similar outputs of glass fibre can be achieved, preserving all the favourable properties highlighted above. . This suggests that Woodforce can be seen as an alternative to glass fibre but with the advantage of meeting some compelling requirements that come, for instance, from the automotive industry, such as weight savings and sustainability. A technical paper releasing most of the discoveries of this development is scheduled to be published by the consortium partners in early 2014. (What publication?)

**Giorgio Colombo**, Managing Director of Icma San Giorgio, said: "This is a particularly significant R&D activity that marks a new and innovative step for natural fibre composites. I am pleased that ICMA is part of this development because we bring a very long and unique experience that started with Woodstock technology in the early '70s, in designing the right compounding line for processing natural fibre plastic composites."



**ICMA SAN GIORGIO SPA** ([www.icmasg.it](http://www.icmasg.it)) is an Italian company belonging to a family-owned group with over 100 years industrial heritage in the mechanical and metallurgical industry. With over 40 years of experience in the production of plastic processing machinery, Icma is today one of the leading suppliers of co-rotating twin-screw extruders and turnkey systems for compounding and direct extrusion applications.

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