

## PEM-ENERGY OY AND TELENE LAUNCH INNOVATIVE WIND POWER ON A HOUSEHOLD SCALE

**FINNISH HIGH-TECH COMPANY PEM-ENERGY HAS CHOSEN TELENE® FOR ITS NEW SMALL SCALE MYPOWER WIND TURBINE .**

### HARNESS THE WIND TO SAVE MONEY AND ENVIRONMENT

PEM-Energy Oy has a long history in green technology solutions. Founded in 1988, the Finnish company manufactures MyPower wind turbines and components for **household and business use**. "Generating your household energy by wind power can be a **private response to climate change**. A wind turbine can generate energy for a house or summer cottage and even for business by arranging several turbines in a system. Our aim is to enable self-sufficient energy production without putting a load on the environment." says Mikael Seppälä, Managing Director of PEM-Energy Oy. It pays for itself in a relatively short time: three to seven years, depending on local wind conditions and the price of electricity. Wind power is also **environmentally friendly**. The turbine has a **nominal output of 2 kW**, mast height of five metres and turbine diameter of four metres. It generates **about 5,000-12,000 kWh of energy a year** and up to **15,000 kWh a year on windy shores**.

### TELENE®: HIGH PERFORMANCES



"Telene® is our material of choice due to its **excellent strength, resilience and durability**" says Juhani Pylkkänen, Professor of Production Technology in University of Oulu (north Finland), who participated in the R&D for the windmill. "Compared with alternative materials, Telene® has a **better quality surface**. It retains its shape well, lends itself well to moulding into integrated structural parts **and withstands the test of time and difficult weather conditions better than other plastic materials**. The difficult manufacturing process and high price of carbon fibre and similar materials restrict their usability, while aluminium and composite structures did not have the required tenacity in our tests", Juhani Pylkkänen sums up. Juhani Pylkkänen is delighted with the service orientation of the parts supplier: "**Junkkari Muovi**, who moulds the windmill parts in Telene®, readily offered help in strength calculations and moulding design. Their support also played a crucial role in the choice of material."

### TELENE®, ENVIRONMENT FRIENDLY

"Besides the specific advantage of Telene®'s **closed mould process** which allows to **reducing COVs**, traditionally associated with GRP Hand-Lay-up or Spray-up processes, all Telene® grades offer a **favorable energy balance** when compared to several other materials. It is **four times lower than for Polypropylene** and **ten times lower than for Polycarbonate**." said Alexander Daemen, President of Telene SAS

\* The energy balance expresses the total energy consumed to produce a Telene® part.

### TELENE AT THE JEC COMPOSITES SHOW 2009 AT THE D46 BOOTH

The Telene® team will welcome you at the **JEC Composites Show** (Paris March 24- 26) **at the D46 booth**. Complete windmills will be exhibited on the booth as well as on the JEC's demo area.

More information on:

Telene® on [www.telene.com](http://www.telene.com)

PEM Energy on [www.pem-energy.com](http://www.pem-energy.com)

*Telene SAS, a Rimtec Corporation company, develops and distributes Telene®, a two-component DCPD (dicyclopentadiene) resins system, converted by the RIM (Reaction Injection Moulding) process, and resulting in a high performance polymer. Its process and properties allow the formation of large, complex design parts, resistant to hostile environments and cost effective for small to medium series. Telene SAS headquarters, R&D centre and sales office for EMEA are located in Drocourt, France. [www.telene.com](http://www.telene.com)*

*Junkkari Muovi Oy is a talent in injection molding and mold manufacturing with a service offering injection and reaction injection molded plastic parts from single products to part assemblies. The specialties are reaction injection molding in Finland from the unique Telene material, which offers several new possibilities. The resources and knowledge of plastic technology offered to the industry, the modern raw materials as well as the wide cooperation network and support from the entire group ensure that even the most challenging projects can be run through flexibly and in a planned manner. [www.junkkarimuovi.fi](http://www.junkkarimuovi.fi)*

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