

# Pilot Nano House in Moscow



## Details

<b>Location</b>	Moscow, Russia.
<b>Description</b>	Nano house is a joint project of the Civil Construction Department of Moscow and RUSNANO. Application of nanotechnologies reduces construction time (all works are expected to be finished 5 months ahead of the time) and, therefore, cuts costs for construction. With the use of innovative solutions it is possible to increase life span of residential buildings by 30%. Moreover, high energy efficiency of the nano house will allow its residents to make savings on heating and electricity.
<b>Date of project</b>	2015.
<b>Where FRP composites are used and why</b>	<p>ROCKMESH composite mesh is used for fixing of internal partitions of walls. The mesh is lighter, stronger and more resistant to external environment than its steel analogues. Life time of the composite mesh exceeds 100 years.</p> <p>Composite dowels are being applied for facade finishing. Basalt fibre reinforced polymer (BFRP) is a material having high strength and low thermal conductivity properties, which are essential when fixing of insulation boards – composite dowels do not create “thermal bridges” between building’s walls and outdoor environment. Moreover, frost-resistant materials the dowels are made from (BFRP and impact-resistant polypropylene) allow installation works to be held at low temperatures.</p>
<b>Type of composite used</b>	BFRP.
<b>Performance in service</b>	Interior systems and functional elements of the building are scheduled to be monitored 2 years after its commissioning. Upon the results the experts will make recommendations on the use of new materials and technologies in civil construction.

## Contact