



03/06/2007 - Turn-Key Plant for Sound Absorption Panels in Continuous Process



The automotive industry's ever increasing demand for a high productivity and constant improvement in final product quality has involved the OMS Group in a project to utilise its research and development facilities to produce an innovative technology applied to the production of sound absorption panels for cars and industrial vehicles.

One of the leading European manufacturers in this field has chosen OMS Group as partner supplier for a new continuous production plant of sound-absorption panels for both FORD and ROVER vehicles.

Thanks to its in-depth experience in the field of lamination, OMS Group has transferred the technology applied to panels continuous production lines for the

thermal insulation to the automotive industry.

This ambitious project involves the continuous production of a composite polyurethane foam mat having excellent sound-absorption properties (VISCO ELASTIC-FOAM). After cutting to size, the foam mat is introduced immediately into a suitable mould-support press to obtain a finished product having the required dimensional shape.

The plant is composed of:

- an unwinder group for flexible substrata - upper and lower substratum composing the sound-absorption panel facings
- a heated pouring plane with temperature control
- an electric traverse - providing and even distribution of the polyurethane foam across the lower flexible substratum
- a specially designed double belt conveyor controlling the reaction of the reactive mixture forming the mat, which can be of variable thickness according to requirements.

A suitable cross cutting machine is used to cut panel to size utilising a water jet.

After the cutting phase, the mat is introduced into the press by a shuttle type transfer system prior to forming the shape.

Thanks to the high temperature of the mould, just few seconds are necessary to achieve the final polymerisation.

As for the WET part, this plant is provided with a well-tested ECOMASTER 2 series, high pressure metering group equipped with a special mixing head suitable for continuous pouring mounted on to the electric traverse.

This innovative technology offers several important advantages including high productivity, reduced raw materials consumption and excellent quality resulting in the even distribution of the PU through the electric traverse.