

Next Generation Polyurethane Skins for Automotive Integrated Aesthetical Parts and Interior Trim Applications

Maurizio Bottazzi - Dow Italia s.r.l.

Today the use of polyurethane systems to produce aesthetical coverstock for car interior applications is experiencing a very rapid growth; reasons for this are both economical and functional. The possibility to use aromatic polyurethane systems offers a cost and technically efficient performing solution, if compared to the polyurethane aliphatic alternative.

The research made by The Dow Chemical Company (Dow) brought to the definition of a wide variety of suitable PU systems covering a broad range of hardnesses.

This article covers the most recent developments made by Dow in the definition of a next generation family of soft touch polymers. These polymers can be successfully applied with both injected and spray technologies. In particular as far as the injected technology is concerned the final applied density ranges from 1050 g/l to 700 g/l with a wall thickness of 0.8 mm or down to 400 g/l with wall thickness up to 15 mm.

The next generation soft touch skin technology developed by Dow allows producing in a single shot, parts with different softness degrees depending on the mold thickness. This new technology can be successfully applied to all different types of substrates. If combined with the LD-RRIM substrate developed by Dow, it provides automotive interior trim solutions with an integrated soft touch entirely based on polyurethane as polymeric component.