

## Techsil Provide Bonding Solutions for Automotive Seating

The increasing demand for more comfort, quality and visual appeal for automotive interiors alongside economic and environmental aspects are key drivers for designers when selecting new textiles, fabrics or decorative trim solutions. Some of these new materials can be difficult to bond and require advanced adhesive assembly technologies to enable customers to meet current and future interior automotive specifications.

Techsil supply a range of hot melt adhesives and tapes into key Tier 1 automotive seat suppliers; one such customer had 2 requirements they needed solutions for.

### Our Customer

Automotive



### Techsil Products Used

Techsil® 6811-43

And

Techsil® HM27399

And

ITW Stovkis D3051

### Application 1: Difficult to Bond Substrates

The first challenge was to find a fast assembly solution for the rear seat unit of a sport utility vehicle. The application required the bonding of the rear carpet finisher to the powder coated metal frame. A fast curing solution was required, however not too fast as the operator needed enough time to apply the correct bead pattern to the frame to ensure maximum coverage. An added complication was that the customer also required a high temperature resistance, well and above the standard hotmelt EVA specifications of 60°C to 80°C.

### Solution 1

Techsil 6811-43 was selected for testing, a hot melt adhesive with a softening point of 150°C and a temperature resistance of 110°C, along with a flexible low temperature of -30°C (TG).

Extended environmental and physical tests proved successful for 6811-43; however as the vehicle build increased, a faster assembly

## Customer Benefits

- Increased productivity
- Bespoke product development
- Scalable solutions
- One supplier for two bonding applications

process was required. This meant more operators in the production cell. To overcome this added production pressure, the customer looked into installing bulk melter tanks with dual hoses.

To allow this new production method to work Techsil developed a bulk version of the Techsil 6811-43, Techsil HM27399. This grade has all the same specifications as the 6811-43 however could cope with the higher production demands required; it passed all required testing and both forms are now used on the line.

## Application 2: Assembly Assistance

The second application was to assist in the assembly of an internal car seat armrest. They needed an easy to apply solution which could support the product line engineer by creating an instant hold between the foam filler to the armrest base whilst they assembled the leather cover over the top of the foam.

## Solution 2

A hand tearable tape was selected, ITW Stokvis D3051. This double sided tissue tape has an acrylic adhesive and as it can be torn by hand it means application is very quick and easy to on the production line. The acrylic adhesive gives enough tack to hold the foam whilst the cover is fitted.

**Contact us for more information on our Automotive Hot Melt and Tape Solutions:**

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