Innovative ARALDITE® resin system offers a new dimension to composite rail vehicle designs

Huntsman Advanced Materials has developed an innovative solution combining excellent mechanical and inherent FST properties, that is set to offer greater design freedom in delivering new interior rail vehicle concepts.

Developed for RTM, Infusion or Pultrusion processes, the new ARALDITE® FST 40004 / 40005 –allows fast development of high performance, lightweight composite components.

Using this system, small and medium parts can be made quickly, large parts can be produced cost effectively at low temperature injection and a very low exotherm enables the accurate production of high thickness parts without any limitation to part complexity and function integration.

Without the use of fillers, ARALDITE® FST 40004 / 40005 achieved the HL1 / HL2 hazard level of fire safety testing under the unified pan-European EN 45545-2 testing programme thanks to its non-halogenated inherently flame retardant behaviour.

ARALDITE® FST 40004 / 40005 takes user-friendly processing technologies into a new dimension enabling fast RTM curing capabilities at around 5 minutes / 150°C and a pultrusion speed of circa 12 metres an hour.

This system also exhibits a high modulus which enables ease of installation through the production of rigid parts that can also withstand the physical stresses and strains experienced in a vehicle application.

Commenting on the launch of this unique solution, Laurent Pourcheron, marketing manager for Huntsman Advanced Materials,

said: "With ARALDITE® FST 40004 / 40005, you can build shape while building enhanced functionality into the part itself. Ensuring form meets function is an essential part of our material development strategy.

Interior components such as luggage shelves, tables ceiling panels and even window trims can not only deliver the aesthetic design required but also serve as complete structures, providing a more cost effective solution without the need or added expense of any additional elements."

Huntsman Advanced Materials is a global manufacturer and marketer of differentiated chemicals. Its operating companies manufacture products for a variety of industries, with the transport sector representing a high priority as a key facilitator of sustainable mobility solutions in the drive to create a low-carbon Europe.