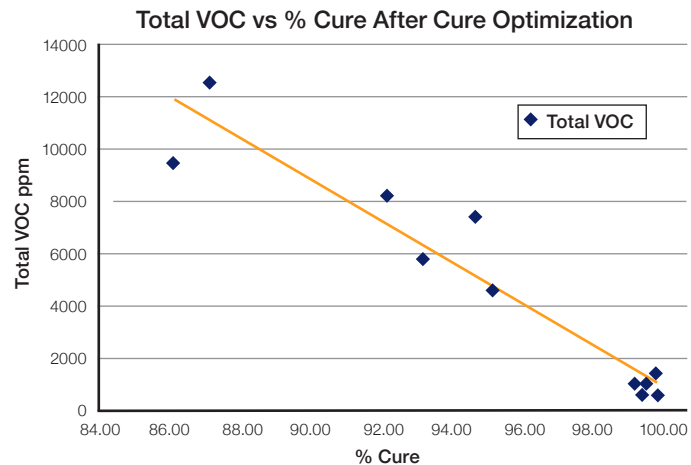# AROTRAN™ 600 SERIES
## LOW VOC/LOW ODOR SMC AND LCM RESIN SYSTEMS

The "new car" smell is familiar and desired by many consumers; however, research has shown this familiar odor is a result of chemicals emitted from the individual materials which make up the interior compartment of a vehicle. Those chemicals may contain volatile organic compounds (VOCs) and within the confined space of a vehicle, the VOCs may reach unacceptable levels. Each automotive original equipment manufacturer (OEM) has standards to minimize the level of VOCs in the interior passenger compartment of vehicles to both improve interior air quality and minimize the effect to the overall environment.

INEOS Composites's new Arotran™ 600 series resin systems lower both the VOCs and odor level in sheet molding compound (SMC) and liquid compression molding (LCM) materials. In addition, the Arotran™ 600 series systems are low density allowing for lower emissions and the opportunity to reduce the weight of interior parts.

There are several sources for VOCs and odor in SMC and LCM systems, from the resin and thermoplastic additives (LPA) to styrene and the cure system (initiators and inhibitors). INEOS has found ways to reduce the odor and VOCs by both replacing existing materials and optimizing the cure of the system to ensure all volatile material is incorporated into the polymer. The replacement materials are environmentally friendly and REACH compliant.

Total VOC vs % Cure After Cure Optimization

SMC and LCM materials created from Arotran™ 600 systems are similar in reactivity, have better conversion (cure) and mold like current systems. In addition, the physical properties are not affected by the replacement of styrene in the system.

Low VOC/Low Odor SMC Comparison
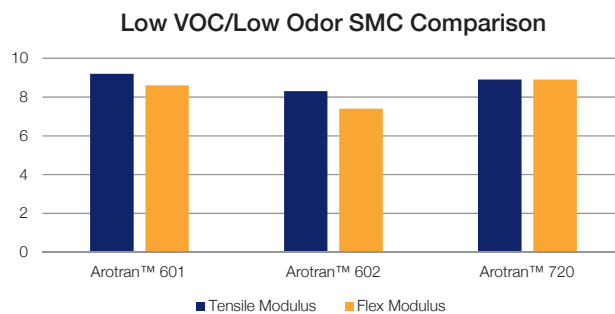
At INEOS Composites, we strive to be good partners by meeting the expectations that are important to our customers. Today, that means we're focused on reducing our environmental footprint, while continuing to provide the innovative products and sustainable solutions our customers require.

INEOS Composites

Worldwide resources dedicated to helping the automotive industry design and manufacture the cars of tomorrow.

From door panels to deck lids and valve covers to heat shields, INEOS's products and technical abilities will help in the manufacture of lightweight parts. While primary research and development activities are based in the United States, we also maintain product development teams in Asia and Europe to ensure we develop solutions suited to our global customer base.

INEOS's technical service team has an industry-leading reputation for solving problems and collaborating with customers to improve processes. We will work closely with our customers to understand specific application challenges and recommend the best product to meet business objectives. Whether focused on product design, process optimization or new product development, INEOS prides itself on building strategic partnerships that lead to innovative solutions. Visit ineos.com/composites to learn more.

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