

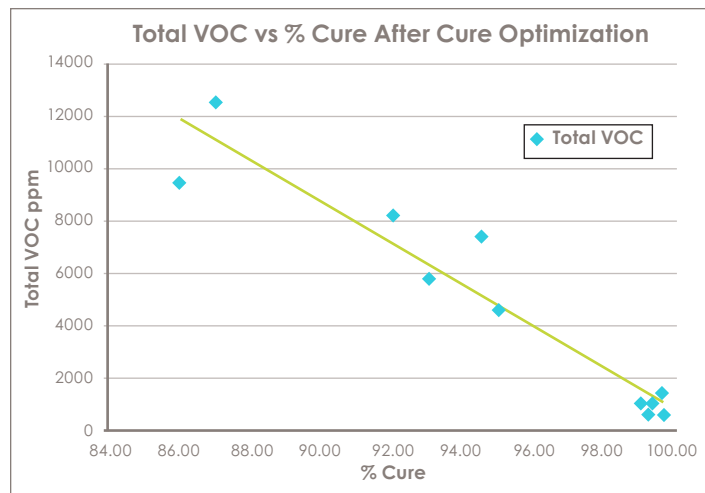
# Arotran™ 600 series low VOC/low odor SMC and LCM resin systems

## Reduced VOC's and odor for interior automotive applications

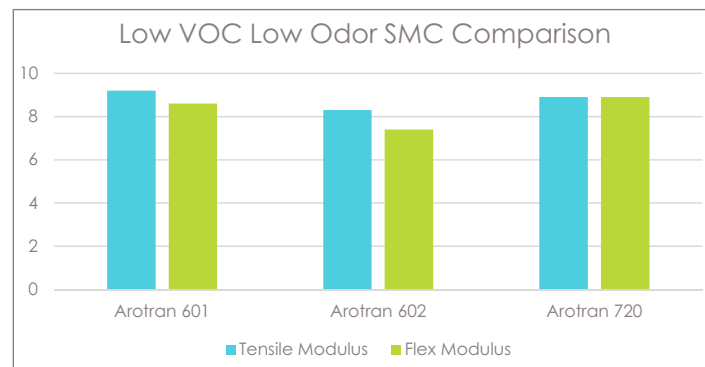
The “new car” smell is familiar and desired by many consumers however research has shown this familiar odor is a result of chemicals emitted from the individual materials which make up the interior compartment of a vehicle. Those chemicals may contain volatile organic compounds (VOC's) and within the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

Ashland's new Arotran 600 series resins systems lower both the VOC's and odor level in SMC (sheet molding compound) and LCM (liquid compression molding) materials. In addition, the Arotran 600 series are low density allowing for lower emissions and the opportunity to lighten interior parts.

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



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.



At Ashland we are focused on reducing the environmental footprint of our global operations, while continuing to provide products and sustainable solutions that our customers require.



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, Ashland'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.

Ashland's technical service team has an industry-leading reputation for solving problems and helping customers 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, Ashland prides itself on building partnerships that lead to innovative solutions. Visit [ashland.com/transportation](http://ashland.com/transportation) to learn more.

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