



Arotran™ Next-Generation Resin System for Structural SMCs

Description

To meet the automotive industry's growing demands for **cost-effective, high-strength, low-mass** materials, INEOS Composites has developed a new family of high-performance thermoset resin systems for structural sheet molding composites (SMCs). The Arotran 2502 resin series is *versatile* to compound with, and the resultant SMCs are easy to mold and yield high mechanical properties.

Benefits

The Arotran 2502 resin systems have inherently high mechanical properties, and can accommodate a wide range of reinforcements (glass and/or carbon fibers), engineered fillers (CaCO₃, ATH), additives, pigments, and glass microspheres, resulting in:

- ⇒ SMCs: Significantly increased strengths and stiffness, lower densities, improved FR performance.
- ⇒ Parts: Durable, cost-effective, lighter, and dimensionally stable.

Typical Applications

- Pickup Truck Beds, Boxes, Stowage Compartments, and Tailgates
- EV/HEV Battery Covers, Enclosures, Carriers, Reinforcements, and Frunks
- Front-End Bolsters, Headlamp Carriers, Radiator Supports, Bumper Beams
- Underbody Impact/Heat/Aero Shields

Typical Liquid Properties for Arotran 2502 Resins @ 25°C

Viscosity, Brookfield (cps/mPa-s)	240 – 450 (#2 @ 30 rpm)
Non-Volatiles (% wt)	65 – 70
Acid Value	20 - 25

Typical Physical Properties of Arotran 2502-Based SMCs

Property	Mid Density Structural	Standard Density Structural & Fire Retardant	Unit	Method
Tensile Strength	140	115	MPa	ASTM D-638
Tensile Modulus	10.8	12.5	GPa	ASTM D-638
Flexural Strength	270	225	MPa	ASTM D-790
Flexural Modulus	10.5	11.8	GPa	ASTM D-790
Specific Gravity	1.47	1.98		
Glass Content	54	50	%	

Product Safety

Read and understand the Material Safety Data Sheets before using these products.

Contact Us!

For more information about how the INEOS Composites family of unsaturated polyester resins, epoxy vinylester resins, performance additives, and gel-coats can benefit your composite materials and products, please visit <https://www.ineos.com/businesses/ineos-enterprises/businesses/ineos-composites/> or contact Dan Dowdall (Business Development Manager, dan.dowdall@ineos.com).