Automotive, Commercial Vehicle and Aftermarket Solutions

Innovation through differentiated solutions – that’s how Dow Automotive Systems addresses a wide range of challenges facing the automotive, commercial vehicle and aftermarket industries. Drawing on the vast research-integrated chemistry, materials science, and chemical and mechanical engineering expertise of The Dow Chemical Company, Dow Automotive Systems collaborates closely with customers to develop lightweighting, acoustical and vehicle durability and quality solutions.

Nearly all solutions offered by Dow Automotive Systems reduce vehicle weight and provide assembly efficiencies that result in lower total production cost. Our portfolio includes a wide range of multifunctional products designed to help you achieve your goals.

Lightweight Solutions
BETAFOAM™ structural foams deliver improved crashworthiness and better acoustic performance and cavity sealing. In some cases, the use of BETAFOAM structural foam has enabled more than 36 pounds of net mass reduction per vehicle while maintaining safety performance.

BETAFORCE™ composite bonding adhesives are the technology of choice for leading OEMs assembling innovative composite parts by joining carbon fiber and dissimilar materials directly in the trim shop. BETAFORCE can be used to bond coated metals like steel to aluminum, carbon fiber panels to steel or aluminum, sheet molding compound to aluminum and more.

BETAMATE™ 1- and 2-part structural adhesives are used for bonding the vehicle body in white, closures and dissimilar metal or composite materials in lightweight designs in the OEM body shop or a repair environment. BETAMATE crash-durable structural assembly continues to be the most widely used solution in the industry and has been driven more kilometers than any other technology.

VORAFORCE™ formulated resin systems offer large intricate part resin transfer molding and mass production capabilities due to extremely low viscosity for optimum fiber wet-out and final part performance, together with industry-leading, ultra-fast cure molding cycles (less than 90 seconds cycle time).

VORAFUSE™ carbon fiber pre-preg sheet solutions enable complete process automation for mass production of compression-molded structural parts. VORAFUSE innovative discontinuous carbon fiber molding compounds offer the ability to produce more complex geometries and to integrate recycled carbon fiber streams in molded parts production.

Advanced Acoustical / NVH, Aesthetic, Comfortable Interior and Exterior Solutions
BETAFOAM™ NVH acoustic foams are advanced cavity-filling foam solutions designed to improve cavity sealing and reduce noise inside the vehicle to enhance quality and appeal. Filling every complex shape and contour, the bulk foam provides reliable 3-dimensional sealing and complete design flexibility. New BETAFOAM Renue offers lower emissions due to renewable content, as well as easier processing. The sustainable foam also contributes to improved fuel economy with a ~ 25% reduction in density.

SPECFLEX™ formulated polyurethanes make comfortable seating foam, high-quality instrument panel foam, and best-in-class acoustic/NVH absorbers for carpet underlay, dashmats, headliners and under-the-hood components. SPECFLEX meets stringent OEM and regulatory emissions specifications. Fast demold time and lower density are also benefits precisely tuned for each customer production line.

VORANOL™ and SPECFLEX polyether polyols and PAPI™, ISONATE™ and VORANATE™ MDI isocyanates have a wide range of properties that produce low- to high-density foams and composites with low emissions properties. Applications include seating, NVH, instrument panels and other interior structures.

ENGAGE™ polyolefin elastomers offer the flexibility and toughness of synthetic rubber with the processability of plastics and are often used to modify other materials for impact resistance or improved low-temperature performance. Applications are skins – heavy layers – interior and exterior plastic components.

NORDEL™ hydrocarbon rubber offers excellent performance and unmatched processing advantages that can help cut production time. It is ideal for use in automotive weatherstripping, skins, hoses and belts.

MORAD™ adhesives provide durable interior trim laminating.

INTEGRAL™ adhesive films are heat- and pressure-activated, highly engineered thermoplastic polyolefin adhesives available in a clean, dry (solvent-free), non-tacky form.
Glass Replacement and Body Repair

BETABRADE® F1 contamination remover is the fast, easy and foolproof way to remove silicone residue and other heavy contamination from auto glass.

BETACLEAN™ cleaner is a multi-purpose cleaner that provides advanced surface preparation for the glass as well as the car body side in glass replacements.

BETAFILL® seam sealants are one-component, moisture-curing sealants with durable elasticity and good adhesion to a wide variety of substrates.

BETAPRIME™ primers promote adhesion to the vehicle body and inhibit rust in small nicks and scratches on the pinchweld.

BETASEAL™ glass bonding systems are used worldwide for structural bonding and sealing of stationary glass to help vehicles meet globally mandated safety requirements for barrier, rollover and roof crush regulations.

BETASEAL Uni-wipe systems offer the same advantages for the same applications, while providing the convenience of a single clear wipe around the glass – with quick open time – before application of a specially formulated adhesive.

BETATECH™ solvent-free sealants offer exceptional primerless performance on a variety of substrates.

BETAWIPE™ surface activators quickly and easily prepare automotive glass and many other substrates for bonding and promote adhesion, improving the strength of bond cross-linking between the substrate and adhesive.

Specialty Adhesives

MEGUM®, ROBOND® and THIXON® bonding agents can be specially formulated to meet specific bonding requirements of elastomeric materials to metal, engineering plastics or other elastomers. These tough adhesives offer high performance in severe environments while bonding engine mounts, bushings, seals and other anti-vibration parts.

MORFLOCK® and POLYFLOCK® flocking adhesives bond well to various elastomers and effectively bond weatherstrips critical to long-lasting vehicle structural integrity. They feature excellent wear resistance and can be applied by spraying, brushing and other methods commonly used for flocking applications.

Fluids

DOW brake fluids are fully tested and certified premium brake fluids including a complete line of DOT 3, DOT 4, DOT 5.1 and racing brake fluids.

UCON® refrigeration compressor lubricants are unique high-performance formulations for mobile air compressors, compressor and assembly lubrication and air conditioning recharges.

For more information about all Dow Automotive Systems solutions supported by this wide range of multifunctional products, contact us or visit dowautomotivesystems.com.

ABOUT DOW AUTOMOTIVE SYSTEMS

Dow Automotive Systems, a business unit of The Dow Chemical Company, is a leading global provider of collaborative solutions and advanced materials for original equipment manufacturers, tier suppliers, aftermarket customers and commercial transportation manufacturers. Our materials focus includes structural, elastic and rubber-to-substrate adhesive solutions; polyurethane foams and acoustical management solutions; films; fluids; and innovative composite technologies. Offices and application development centers are located around the world to ensure regionalized technical, engineering and commercial support for customers and industry groups. For additional information, visit dowautomotivesystems.com.

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