Improving vehicle acoustic performance

**SPECFLEX™ POLYURETHANE SYSTEMS ADDRESS A WIDE RANGE OF INTERIOR ACOUSTIC APPLICATIONS THAT ENHANCE VEHICLE SOUND-QUALITY PERCEPTION.**

Part of a growing portfolio of acoustic solutions from Dow Automotive Systems, SPECFLEX polyurethane (PU) systems are formulated solutions designed to optimize performance, weight, cost and processing for NVH applications. Viscoelastic and high-resiliency foams, as well as spray heavy-layer systems, are available.

All SPECFLEX PU systems are water-blown, containing no chlorofluorocarbons or other known ozone-depleting substances. Dow Automotive Systems has also developed several low-emission, low-density foams that offer excellent sound absorption characteristics.

**Benefits**

Advanced Dow Automotive Systems technology allows us to use customer acoustic targets to customize foam formulations that meet desired performance levels while balancing weight and processing targets. In addition to the desired absorption, barrier and/or damping qualities, SPECFLEX PU systems provide:

- Low emissions
- Low density
- Excellent acoustic performance
- Fast-curing systems to enable increased productivity
- Unique spray PU heavy-layer technology (with > 70 percent filler loading) enables exceptional NVH performance and weight reduction by allowing controlled thickness distribution
- Excellent flow, allowing processing of large, complex shapes

SPECFLEX PU systems can be used in carpet and dash systems where noise management can enhance the quality and appeal of the vehicle.
As a technology and market leader in the PU sector, Dow Automotive Systems possesses the capabilities that empower us to offer best-in-class low-emission formulas, renewable or “green” content and processability. Technical expertise helps us predict and deliver high-quality solutions.

Adding renewable content

Many PU products from Dow Automotive Systems can be produced with RENUVA™ renewable resource technology. This breakthrough technology from Dow creates natural oil-based polyols for making products with high levels of renewable content and exceptional performance, all without the odor often associated with other bio-based polyols. RENUVA technology is greenhouse-gas neutral and uses up to 60 percent fewer fossil fuel resources than conventional technologies.

Sustainable performance

SPECFLEX™ PU systems incorporate VORANOL™ polyols, helping minimize VOC emissions while improving interior acoustics. Several additional benefits of VORANOL polymers in SPECFLEX PU systems include:

- Reduced NVH from engine, road and other vehicle sounds
- Reduced amine content in – and lower emissions from – the foam, which can decrease odors caused by VOCs and provide additional environmental benefits
- Faster cure time
- Better flow characteristics

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; PU 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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