

# BETAFOAM

## ACOUSTICAL FOAMS

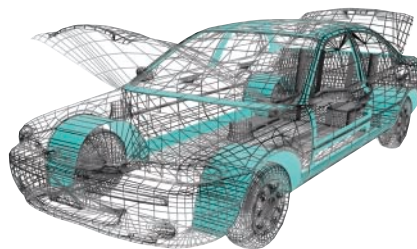


### **BETAFOAM Acoustical Foams Provide Superior Acoustical Performance**

Dow Automotive is a global provider of NVH solutions for body-in-white (BIW), interior and exterior applications. Our material science and characterization expertise, combined with design engineering, processing knowledge and program management, enable us to provide OEM and tier customers with solutions that meet or exceed vehicle performance targets at lower weight and cost.

BETAFOAM\* acoustical foams from Dow Automotive are just one of a number of solutions that positively impact vehicle acoustical performance.

BETAFOAM classic and low-MDI acoustic foam products range in density from 2 pcf to 5 pcf. The two-component polyurethane material consists of a polymeric MDI or an isocyanate prepolymer that reacts with a polyol blend or water/amine catalyst to form rigid closed-cell foam that serves as an acoustical and cavity-blocking foam.



#### *Applications*

Cowl Bars  
A pillars  
B pillars/roof joints  
C pillars  
Rockers  
Wheel wells  
Sail panels

#### *Product advantages and ROI*

- ▶ Low-density formulations form high-performance acoustical seals to prevent noise from resonating through vehicle cavities
- ▶ Cost and mass-efficient solutions compared with traditional approaches
- ▶ Design flexibility due to foam filling any cavity shape and contour, and no re-design required after sheet metal changes
- ▶ Low material cost and reduced or eliminated tooling cost
- ▶ New low-MDI formulations may relieve ventilation requirements and ease operations in assembly
- ▶ Cost savings of \$8 to \$21 per vehicle have been sustained by the BETAFOAM sealing system according to data collected from six assembly plants over three years

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*Left and center: BETAFOAM provides excellent cavity-blocking performance. Right: Air leak testing in Dow Automotive acoustical lab.*

### *Case study*

Used in acoustical, air and water seal systems, and for baffle replacement in a mid-size luxury vehicle program, 2 pcf low-MDI BETAFOAM provided these benefits in the following acoustic application case study:

- ▶ Performance – superior body leak testing results, reproducibility, reliability and cavity-blocking performance, compared to baffles
- ▶ Mass savings – 1.1 kg per vehicle savings compared with baffle parts
- ▶ Material cost savings – \$18 per vehicle
- ▶ Averaged BIW leak test results
  - Baseline performance  
~ 3.254 cmm\*
  - Performance with baffles  
~ 2.745 cmm
  - Performance with acoustic foam  
< 0.424 cmm
  - Customer target  
< 0.849 cmm

### *Full-service support from a single-source supplier*

In addition to the largest selection of automotive material solutions, Dow Automotive offers foam dispensing equipment and management of the complete foam process in the assembly plant. Specific services include:

- ▶ Design engineering services including mass optimization, hole location, foam placement and shot optimization, with prototype support in all phases
- ▶ The full range of material, component-level and full-vehicle testing and validation provided from Auburn Hills acoustical lab

Contact your customer service representative, or visit [dowautomotive.com](http://dowautomotive.com) for more information. For technical information select “Downloads” on home page and “Technical Data Sheets” on the next page.

*We listen. We deliver.*



### ***Dow Automotive***

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\*Cubic meter per minute