

# Thermal and Acoustical Systems

## dBCore® Exterior Tunnel Absorber



**Lightweight dBCore® Exterior Tunnel Shields** are engineered to provide both excellent sound attenuation and thermal protection in underbody and underhood applications. Constructed of an integrated polyester core, coverstock and aluminum foil, these shields have a thermoplastic binder that provides excellent moldability to contour with vehicle design.

### Applications:

- Tunnel insulators
- Exterior dash insulators
- Hood Insulators



### Acoustical Performance

- High acoustic absorption performance
- Transmission loss and vibration decoupling from fiber core
- Tuned composites available for improved low to mid frequency absorption 100-2500Hz

### Features and Advantages:

- PET fiber structure offers high part strength and toughness
- Low part weight with high NVH performance
- High thermal protection to underbody components
- Fully Recyclable Composite with Recycled Material Content
- Resistant to exterior automotive environmental conditions and operating fluids

### Material Types:

|                                      |   |
|--------------------------------------|---|
| <b>Thickness (Range)</b>             | 2 – 25 mm   |
| <b>Surface Weight (Range)</b>        | 750 – 1350 g/m <sup>2</sup>   |
| <b>Tensile Strength (ASTM D5034)</b> | Mach. Dir – 162 N/cm <sup>2</sup><br>Cross Dir – 196 N/cm <sup>2</sup>                      |
| <b>Flammability (SAE J369)</b>       | Self Extinguishing  |
| <b>Temperature Resistance</b>        | Continuous - 150° C<br>Intermittent – 204° C  |
| <b>Qualified OEM Specifications</b>  | Ford WSS M99P32-E6<br>Chrysler MSHZ100-X-T1<br>General Motors GMW16653<br>Nissan 67800NDS00 |

### Material Construction Options:

- Polyester fiber core material in white or grey
- Variety of surface cover options including Al Foil, Black Nonwoven, Microperforated Al, or unfaced
- Tuned acoustic constructions available for improved absorption performance in specific frequencies

Random Incidence Sound Absorption Alpha Cabin

