second skin automotive insulation

# Thermal Block

**FLEXIBLE STICK-ON HEATSHIELD**

## GENERAL DESCRIPTION

Thermal Block is a Flexible, Multi-Layered, Stick-On HeatShield that provides a Cost-Effective, Durable and more easily Installed alternative to All-Metal HeatShield

## PRODUCT HIGHLIGHTS

- ✓ Provides a simple and low-cost solution for mid-temperature thermal shielding applications
- ✓ The flexible structure of Thermal Block can conform to various curvatures and shapes
- ✓ The pressure sensitive adhesive allows it to be directly attached to most automotive surfaces (body structure surfaces, fuel tanks, fascias, suspension components, etc)
- ✓ Meets General Motors GMN10046, Ford WSS-M9932A/B and Chrysler MS-10943

## APPLICATION

Typically used as a "Quick-Fix" for Thermal Hot-Spots in Automotive Applications such as Fuel Tank, Fuel Line, Brake Line, Spare Tire and Underbody HeatShields.

## MATERIAL PROPERTIES

| | |
|---|---|
| **THICKNESS** | 4.0mm +/- 1.5mm (can be tailored to meet specific requirements) |
| **ADHESION PROPERTIES** | Adhesion can be tailored to most automotive surfaces (steel, electro-coated metals, HDPE, etc) |
| **SOLVENT RESISTANCE** | Water, Salt Solution, Oil, Sulfuric Acid, Coolant, Transfluid, Brake Fluid, Gasoline[1] |
| **FLAMMABILITY** | Passes FMVSS302 |

## OTHER PROPERTIES

- ✓ Thermal Block is made of a reflective Aluminum surface, a non-needled, non-woven fiber insulation layer and a pressure sensitive adhesive (PSA)
- ✓ The Aluminum surface and fiber insulation layer can be adjusted to meet the insulation needs of the project
- ✓ Resistant to mildew
- ✓ Passes Gravelometer, SAE J400

[1] *On slight modification of structure with extended aluminum sheet*

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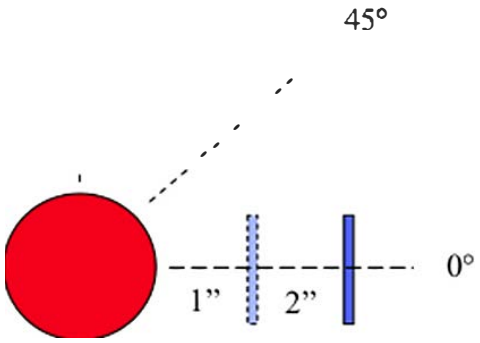
**THERMAL PERFORMANCE**

**TEST SET UP**




**Heat source, 1000 F**

**RESULTS**

| Position | 0° | | 45° | | 90° | |
|---|---|---|---|---|---|---|
| | 1" | 2" | 1" | 2" | 1" | 2" |
| Al (hot side) | 246 | 204 | 371 | 299 | 459 | 390 |
| Al (cold side) | 183 | 156 | 246 | 207 | 360 | 308 |
| Base crs (hot side) | 142 | 123 | 174 | 154 | 247 | 221 |
| Temperature Drop (hot side to hot side) | **104** | **81** | **197** | **145** | **212** | **169** |

NOTES

1. Recommended application temperature for best results is 65°F (18°C) or above. Proper bonding may not occur unless adhesive and surface materials are both above 65°F (18°C).
2. When applying the the surface should be free from oil or other surface contaminates such as powder, dust or release agents. Performance should be checked when used on substrates containing plasticizers.
3. Shelf life of the is one year from date of shipment when stored in a cool dry place beow 76°F (24°C).