

Product Data Sheet  
**TREXPENE®** A70BI-HF  
 PP/EPDM Based Vulcanized TPR

**Product Description:** **TREXPENE®** A70BI-HF is a heat stabilized and UV Stabilized PP/EPDM based Thermoplastic Vulcanized Elastomer (TPV). This high flow, black compound is intended primarily for injection molding applications where longer flow distances and good surface appearance is needed. The material is primarily for under the hood and interior applications. This material can be processed using Injection Molding, Extrusion, Blow Molding or other melt processing techniques.

| Property                         | Test Method                                               | Unit                                          | Typical Values                       |
|----------------------------------|-----------------------------------------------------------|-----------------------------------------------|--------------------------------------|
| Hardness                         | ISO 868                                                   | Shore A (15 second delay)                     | 74±4                                 |
| Density                          | ISO 1183                                                  | g/cm <sup>3</sup>                             | 0.95±0.04                            |
| Tensile Stress at Break          | ISO 37, Type 1, 500mm/min                                 | MPa<br>⊥<br>//                                | 5.5<br>5.7                           |
| Tensile Stress at 100%,          | ISO 37, Type 1, 500mm/min                                 | MPa<br>⊥<br>//                                | 2.8<br>3.6                           |
| Ultimate Elongation              | ISO 37, Type 1, 500mm/min                                 | MPa<br>⊥<br>//                                | 620<br>510                           |
| Tear Strength                    | ISO 34-1, Method B, 500 mm/min                            | kN/m<br>⊥<br>//                               | 26.9<br>27.3                         |
| Compression Set at 70°C/24hrs    | ASTM D395-B, ISO 815-A                                    | %                                             | 32.6                                 |
| Brittle Temperature              | ASTM D746, ISO 812B                                       | °C                                            | -53                                  |
| Long Term Heat Aging Performance | 1000 h @ 110°C followed by ISO 37                         | % Retention Tensile<br>% Retention Elongation | 99.0<br>90.0                         |
| Ozone Resistance                 | ISO 1431-1, "A" 100pphm, 40°C                             | Rating                                        | 0                                    |
| Fogging Number, Photometric      | SAE J1756, GMW3236                                        | % Reflectance                                 | 85.8 Dry Fog                         |
| Odor                             | GMW3205 Code B                                            | Rating                                        | ≥ 7                                  |
| Colorfastness to Light           | SAE J2412, ISO 105-B06, Cond. 5 1,240.8 kJ/m <sup>2</sup> | Change in Color<br>Visual Defects             | ΔE < 3.0<br>No Objectionable defects |



|                             |                                                           |                                                     |                                                             |
|-----------------------------|-----------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|
| Colorfastness to Burnt Gas  | ISO 105-G02, AATCC TM 23, 168 h @ 60°C,                   | Change in Color<br>Yellowness Index<br>AATCC Rating | $\Delta E < 3.0$<br>$\Delta YI < 2.0$<br>AATCC Rating $> 4$ |
| Natural Weathering, Arizona | 105,000 TNR Langley's exposure per GMW3417 L1, F2, G1, T5 | Change in Color<br>Visual Defects                   | $\Delta E < 3.0$<br>No Objectionable defects                |
| Natural Weathering, Florida | 2 years exposure per SAE J1976, Procedure A               | Change in Color<br>Visual Defects                   | $\Delta E < 3.0$<br>No Objectionable defects                |
| Flammability / Burn rate    | FMVSS 302, GMW3232<br>ISO 3795                            | mm/min                                              | 18.6                                                        |

