# Trexprene® A45BU

Thermoplastic Vulcanizate

Mitsubishi Chemical Performance Polymers, Inc.

## Message:

Product Description: TREXPRENE ® A45BU is a heat stabilized PP/EPDM based Thermoplastic Vulcanized Elastomer (TPV). This Black compound is intended primarily for underhood applications such as mats, seals, gaskets, air ducts, CVJ boots, covers, grommets or other parts where softness and conformity are needed. This material can be processed using Injection Molding, Extrusion, Blow Molding or other melt processing techniques.

| General Information | |
|---|---|
| Additive | Heat Stabilizer |
| Features | Heat Stabilized<br>Soft |
| Uses | Automotive Under the Hood<br>Constant Velocity Joint Boots<br>Gaskets<br>Grommets<br>Protective Coverings<br>Seals |
| Appearance | Black |
| Forms | Pellets |
| Processing Method | Blow Molding<br>Extrusion<br>Injection Molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.930 to 0.990 | g/cm³ | ISO 1183 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Shore Hardness (Shore A, 15 sec) | 41 to 47 | | ISO 868 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Wear Resistance [1] | No appreciable loss of grain, texture or color | | ASTM D3844 |
| Change in Tensile Properties - Stress at 100% Elongation in Air, 1000 hrs (110°C) | 12 | % | ISO 188 |
| Fade Resistance [2] | Delta E < 3 | | |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress - Across Flow [3] (100% Strain) | 1.20 | MPa | ISO 37 |
| Tensile Stress - Across Flow [4] (Yield) | 3.50 | MPa | ISO 37 |
| Tensile Elongation - Across Flow [5] (Break) | 530 | % | ISO 37 |
| Tear Strength - Across Flow [6] | 20 | kN/m | ISO 34-1 |
| Compression Set | | | |

| | | | |
|---|---|---|---|
| 23°C, 22 hr | 14 | % | ASTM D395B |
| 100°C, 22 hr | 33 | % | ASTM D395B |
| 23°C, 22 hr [7] | 14 | % | ISO 815 |
| 100°C, 22 hr [8] | 33 | % | ISO 815 |
| **Aging** | **Nominal Value** | **Unit** | **Test Method** |
| Change in Tensile Strength in Air (110°C, 1000 hr) | -10 | % | ISO 188 |
| Change in Tensile Strain at Break in Air (110°C, 1000 hr) | -18 | % | ISO 188 |
| Change in Shore Hardness in Air (Shore A, 110°C, 1000 hr) | 2.0 | | ISO 188 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Brittleness Temperature | | | |
| -- | -54.0 | °C | ASTM D746 |
| Type B | -54.0 | °C | ISO 812 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Burning Rate | 15 | mm/min | ISO 3795 |
| **NOTE** | | | |
| 1. | 100 cycles, CS10 Wheel, 500 g load | | |
| 2. | SAE J2412, 601.6 kJ/m$^2$ | | |
| 3. | Type 1, 500 mm/min | | |
| 4. | Type 1, 500 mm/min | | |
| 5. | Type 1, 500 mm/min | | |
| 6. | Method Ba, Angle (Unnicked), 500 mm/min | | |
| 7. | Type A | | |
| 8. | Type A | | |



Recommended distributors for this material

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