

Product Data Sheet

TREXPENE® A55NI

PP/EPDM Based Vulcanized TPR

Product Description: TREXPENE® A55NI is a heat and UV stabilized PP/EPDM based Thermoplastic Vulcanized Elastomer (TPV). This Natural compound is primarily intended for interior applications 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)	56±4
Density	ISO 1183	g/cm ³	0.94±0.04
Tensile Stress at Break	ISO 37, Type 1, 500mm/min	MPa ⊥ //	4.8 3.7
Tensile Stress at 100%,	ISO 37, Type 1, 500mm/min	MPa ⊥ //	1.8 3.4
Ultimate Elongation	ISO 37, Type 1, 500mm/min	MPa ⊥ //	630 210
Tear Strength	ISO 34-1, Method B, 500 mm/min	kN/m ⊥ //	24.4 19.0
Compression Set at 70°C/24hrs	ASTM D395-B, ISO 815-A	%	24.0
Brittle Temperature	ASTM D746, ISO 812B	°C	-56
Long Term Heat Aging Performance	1000 h @ 110°C followed by ISO 37	% Retention Tensile % Retention Elongation	104.1 101.1
Ozone Resistance	ISO 1431-1, "A" 100pphm, 40°C	Rating	0
Fogging Number, Photometric	SAE J1756, GMW3236	% Reflectance	83.2 Dry Fog
Odor	GMW3205 Code B	Rating	≥ 7
Colorfastness to Light	SAE J2412, ISO 105-B06, Cond. 5 1,240.8 kJ/m ²	Change in Color Visual Defects	ΔE < 3.0 No Objectionable defects

Accelerated Weathering	Filtered Xenon per FLTM BO 116-01, 2481.6 kJ/m ²	AATCC Rating Visual Defects	AATCC > 4 No Objectionable defects
Colorfastness to Burnt Gas	ISO 105-G02, AATCC TM 23, 168 h @ 60°C,	Change in Color Yellowness Index AATCC Rating	$\Delta E < 3.0$ $\Delta YI < 2.0$ AATCC Rating > 4
Natural Weathering, Arizona	105,000 TNR Langley's exposure per GMW3417 L1, F2, G1, T5	Change in Color Visual Defects	$\Delta E < 3.0$ No Objectionable defects
Natural Weathering, Florida	2 years exposure per SAE J1976, Procedure A	Change in Color Visual Defects	$\Delta E < 3.0$ No Objectionable defects