

	TEST	NUSIL/ASTM TEST METHOD	UNITS REPORTED	DESCRIPTION/COMMENTS
<b>CURED PHYSICAL PROPERTIES</b>	Durometer	NT-TM-006;ASTM D-2240	Type A Type 00 Type D As specified	A measure of indentation hardness
	Tensile Strength	NT-TM-0076;ASTM D-12;ASTM D-882	psi	A measure of tensile strength for elastomeric and plastic materials
	Tear Strength	NT-TM-009;ASTM D-624	ppi	The percent elongation at the point of material failure
	Elongation	NT-TM-007;ASTMD-412;ASTM D-882	%	The determination of tensile strength at specified elongation
	Tensile Modulus	NT-TM-007;ASTMD-412;ASTM D-882	psi	The extension remaining after a specimen has been stretched and allowed to retract in a specified manner,expressed as a percentage of the original length
	Tensile Set	NT-TM-066;ASTM D-412	%	A measure of thermal transmission properties by means of guarded hote plate apparatus. Mean test temperatures range from room temperature to 200oF
	Thermal Conductivity	NT-TM-101;ASTM C-177	BTU/FT.F.Hr (Cal/cm.secoC)	A measure of dynamic rebound of elastomeric materials
	Resilience	NT-TM-065;ASTM D-0395	%	A measure of the effects of exposing cured rubber to compressive stress
	Compression Set	NT-TM-011	Percent of original deflection	A measure of penetration hardness
	Gel Penetration	NT-TM-010;ASTM D-1002	millimeter (1/10)	A measure of adhesive/cohesive strength of material, utilizing primed or unprimed lap panels
	Lap Shear Strength	NT-TM-003;ASTM D-792	psi	A measure of specific gravity utilizing a water displacement technique
	Specific Gravity	NT-TM-026;ASTM D-3574;ASTM D-792	N/A	A measure of foam density
	Foam Density	NT-TM-026;ASTM D-1218;ASTM D-1747	Mass/Volume	Index of uncured and cured material measured by the critical angle method using monochromatic light
	Refractive Index	NT-TM-018;ASTM D-1218;ASTM D-1747	Refractive Index	Colour measurement in transmission or reflectance against a standard
	Colour Measurement	NT-TM-110;ASTM D-523/E-308	Delta E	Used to determine shrinkage of elastomeric materials which occurs during vulcanization and cure
	Shrink	NT-TM-059	%	A measure of bubbles or pores within a cured elastomer
	Porosity	NT-TM-073	Porosity Rating 1-3	A comparison between the sample and a set of standards is reported
<b>UNCURED PHYSICAL PROPERTIES</b>	Specific Gravity	NT-TM-097;ASTM D-1298	N/A	A measure of specific gravity utilizing a hydrometer
	Specific Gravity	NT-TM-022;ASTM D-891;ASTM D-1475	N/A	Ameasure of specific gravity utilizing a pycnometer
	Flow	NT-TM-019;ASTM D-2202	0.1 inch	A measure of the degree of slum in a highly viscous material
	Extrusion Rate	NT-TM-033;ASTM C-603	Mass/Unit time	A measure of the extrusion rate of unvulcanised rubber components
	Viscosity	NT-TM-001;ASTM D-1084;ASTM D-2196	Centipoise	Viscosity measurement using Brookfield RVT viscometer
	Kinematic Viscosity	NT-TM-025;ASTM 445	Centistoke	A mesure of low viscosity fluids using Cannon Fenske routine
	Plasticity	NT-TM-058;ASTM D-926	mils	The plasticity number is related to flow properties and elastic properties
	Rheometer (ODR)	NT-TM-069;ASTM 2084	Max Torque(in.x lb.) Scorch time (mins.) T90 (cure time)(mins.)	A specimen is contained within the vulcanization chamver under condition of preset temperature and pressure. A disk in contact with the specimen is oscillated through a small arc which exerts a shear strain on the specimen.The force (torque) required to oscillate the disk is proportional to the stiffness (shear-modulus)of the specimen. The modulus of the specimen increasae wen corss-lins are formed during the cure
<b>CHEMICAL PROPERTIES</b>	Emission Spectroscopy	NT-TM-071;ASTM E-2	PPM	A measure of trace elements
	Infrared Spectrophotometry FTIR	NTTM-057	A scan will be provided	A method to determine material identity
	Non-Volatile Content (% Solids)	NT-TM-004;ASTM D-2288;ASTM D-2369	%	A mesurement of non-volatile and volatile content
	Non-Volatile Content (% Solids) Silicone Primers	NTTM-047;ASTM D-2288;ASTM D-2369	%	A measurement of non-volatile and volatile content in silicone primers
	Total Mass Loss (TML) and collected Volatile Condensable Materials (CVCM) from outgassing in a vacuum environment	ASTM E-595;NT-TM-072	%	The results are effective in determining the suitability of materials for use in aerospace, clean-room,circuit board, and other ultra high vacuum equipment applications
	Swell Test %	NT-TM-038	%	A meausurement of the absorption of solvent material via differences in specific gravity
	Total Extractables %	NT-TM-056	% Extractables	A measure quantifying the amount of extractable material in silicone via change in mass