CONATHANE
MILITARY AND HIGH RELIABILITY POLYURETHANE SYSTEMS
PROPERTY COMPARISON CHART

	EN-7	EN-1554	EN-1556	EN-16
Military Specification		MIL-M-24041-C	MIL-M-24041-C	
Typical Handling Properties				
Mix Ratio by Weight, Part A/Part B	100 / 17.5	100 / 33	100 / 33	100 / 25
Mix Ratio by Volume, Part A/Part B	100 / 17	3 / 1	3 / 1	4 / 1
Mixed Viscosity, @ 25°C, cps	5,500	18,000	10,400	4,000
Work life @ 25°C, (1 lb. Mass)	35 min.	2 hrs (2lb. mass)	60-70 min.(1/2lb. mass)	30 min.
Cure Schedule: @ 25°C	7 days	3 weeks	10-14 days	7 days
@ 80°C	16 hrs.	16 hrs.	16 hrs.	16 hrs.
Typical Physical Properties - Cured System				
Color	Opaque Amber	Amber or Black	Amber or Black	Amber
Specific Gravity (Cured)	1.01	1.09	1.05	1.06
Shore A Hardness (±5)	90	85	80	80
Tensile Strength, psi	2,300	4,500	5,000	4,220
Tear Strength, pli	320	350	200	418
Elongation, %	450	550	400	512
Water Absorption, %, 24 Hours/30 Days	0.2 / 0.43	24hrs - 0.325	24hrs - 2.08 @ 200°F	0.2 / 0.31
Linear Shrinkage, %	1.15	4.50	3.64	2.60
Thermal Shock, -70°C to +130°C (10 cycles)	Passes			
Fungus Resistance	Non-Nutrient	Non-Nutrient	Non-Nutrient	Non-Nutrient
Typical Electrical Properties - Cured System				
Dielectric Strength, VPM 1/16" @ 25°C	785	125mil = 310	125mil = 350	481
Arc Resistance, seconds @ 25°C	>120	120	>120	>120
Test Temperature	25°C / 130°C	25°C	25°C	25°C
Dielectric Constant @ 100 Hz	3.00 / 3.80	6.63	6.12	6.38
@ 1 MHz	2.8 / 3.3	5.23	5.06	4.48
Dissipation Factor @ 100 Hz	0.032 / 0.032	0.044	0.026	0.026
@ 1 MHz	0.012 / 0.045	0.059	0.060	0.083
Volume Resistivity, ohm-cm	4.3×10^{15} / 7.4×10^{11}	5.1×10^{12}	2.4×10^{12}	
Insulation Resistance, ohms	$>2.5 \times 10^{13}$ / 2.3×10^{10}	5.8×10^{13} 2.4×10^{11} (250°F)	9.0×10^{13} 4.2×10^{11}(250°F)	1.5×10^{11}