

Ren:C:O-Thane[®]

Polyurethanes

TDT 178-59-1 R/H

POLYURETHANE CASTING SYSTEM

Ren[®] TDT 178-59-1 resin and hardener is a two-component, liquid polyurethane casting system. When cured, it forms a very hard, tough, heat-resistant compound.

MIX RATIO

Resin to Hardener	By Weight: 36 to 100	By Volume: 50 to 100
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TYPICAL HANDLING PROPERTIES*

	<u>ASTM Method</u>	<u>Resin</u>	<u>Hardener</u>	<u>Mixed</u>
Color	Visual	Dark brown	Reddish brown	Reddish brown
Specific Gravity	D-1963	1.20	1.69	
Viscosity, cP	D-2393	170	18,000	4,000
Gel Time, 4 fl. oz, minutes	D-2471			22

NOTE: These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed in establishing product specifications, please consult with our Product Management Department.

RECOMMENDED CURE SCHEDULE

1. 77°F (25°C) at 7 days

TYPICAL CURED PROPERTIES*

	<u>ASTM Method</u>	<u>Cure Value</u>
Density, lb./ft ³ (g/cm ³)	D-792	101 (1.61)
Cubic Inch per Pound		17.2
Hardness, Shore D	D-2240	88 ± 5
Ultimate Flexural Strength, psi	D-790	9000
Flexural Modulus, psi	D-790	835,000
Ultimate Tensile Strength, psi	D-638	5,500
Tensile Modulus, psi	D-638	905,000
Tg by DMA, E", °F(°C)	D-4065	201 (94)
Deflection Temperature, °F(°C)	D-648	136 (58)
Ultimate Compressive Strength, psi	D-695	14,500
Izod Impact, notched, ft-lb./in	D-256	0.35
Coefficient of Thermal Expansion	D-3386	
		-22° to 86°F, in/in/°F
		-30 to 30°C, in/in/°C
Linear Shrinkage, in/in**	D-2566	22.6 x 10 ⁻⁶
		40.6 x 10 ⁻⁶
		0.001

* Tested @ 77°F (25°C) unless otherwise noted.

** Molds are half round steel, 10 inches long, 0.875 inches deep

SAFETY: Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

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