

**RP 6486 RESIN
RP 6486 SLOW HARDENER
RP 6486 FAST HARDENER**

HIGH-IMPACT RESISTANT

MEDIUM FLEXURAL MODULUS PROTOTYPE SYSTEM FOR MACHINE DISPENSING

Ren® RP 6486 resin with fast or slow hardener is a new development in Parts-In-Minutes polyurethanes. These products are formulated to closely simulate the properties of polyethylene, polypropylene, and other polyolefins. The resulting RP 6486 R/H polyurethane parts will more closely parallel the performance of polyethylene and propylene, and blends in product evaluation simulations and real-life, short-run production applications.

Features of this cured product include notched Izod impact strength of over 5 ft-lb./in for outstanding part durability and toughness. This increase in toughness is made without sacrifice in heat-deflection temperature—over 200°F (93°C) for postcured material. RP 6486 R/H processes easily like other Parts-In-Minutes polyurethanes in the Ren tooling materials family.

MIX RATIO

	By Weight:	By Volume:
Resin to Slow Hardener	100 to 50	100 to 50
Resin to Fast Hardener	100 to 50	100 to 50

TYPICAL HANDLING

	<u>ASTM Method</u>	<u>Resin</u>	<u>Hardener Slow / Fast</u>	<u>Mixed Slow / Fast</u>
Color	Visual	Light amber	Amber/Amber	Amber/Amber
Specific Gravity	D-1963	1.12	1.2 / 1.1	
Viscosity, cP	D-2393	7,800	75 / 100	5,600 / High
Gel Time, 150g, minutes	D-2471			7–8 / 1.5–2.5

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

1. 77°F (25°C) at 7
2. 77°F (25°C) at 24 hours,
176°F (80°C) at 16 hours

TYPICAL CURED PROPERTIES*

	<u>ASTM Method</u>	<u>Slow System</u>		<u>Fast System</u>		
		<u>Cure 1</u>	<u>Cure 2</u>	<u>Cure 1</u>	<u>Cure 2</u>	
Density, lb./ft ³ (g/cm ³)	D-792	72 (1.16)	72 (1.16)	71 (1.15)	71 (1.15)	
Cubic Inch per Pound		23.9	23.9	24.1	24.1	
Hardness, Shore D	D-2240	67	65	66	65	
Flexural Strength, at yield, psi	D-790	4,800	4,500	4,500	4,400	
Flexural Modulus, psi	D-790	110,000	98,000	101,000	96,000	
Ultimate Tensile Strength, psi	D-638	3,600	3,600	4,500	4,300	
% Elongation	D-638	180	130	170	140	
Tear Strength, ppi	D-624	720	610	700	660	
Tg by DMA, E", °F(°C)	D-4065	217 (103)	276 (135)	229 (109)	270 (132)	
Deflection Temperature, °F(°C)66 psi	D-648	156 (69)	216 (102)	147 (63)	201 (94)	
Izod Impact, notched, ft-lb./in	D-256	6.6	5.9	6.3	4.9	
Coefficient of Thermal Expansion	D-3386					
		-22 to 86°F, in/in/°F	87 x 10 ⁻⁶	88 x 10 ⁻⁶	84 x 10 ⁻⁶	88 x 10 ⁻⁶
		-30 to 30°C, in/in/°C	156 x 10 ⁻⁶	158 x 10 ⁻⁶	152 x 10 ⁻⁶	158 x 10 ⁻⁶

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

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

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