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RenCast® Polyurethanes

	<i>Hardness, Shore A</i>	<i>Color, Cured</i>	<i>Mix Ratio Isocyanate to Polyol By wt. (by vol.)</i>	<i>Mixed Viscosity* ASTM D-2393, cP</i>	<i>Gel Time ASTM D-2471, min.</i>	<i>Maximum Rec. Casting Thickness, in.</i>	<i>Tensile Strength, ASTM D-638, psi</i>	<i>Tear Strength, ASTM D-624, ppi</i>	<i>Elongation, ASTM D-638, %</i>
Shore A Hardness									
RenCast 6400-1	52±7	Off-white	10:100 (9:100)	1,300	30	2	1,260	112	420
RenCast 6401-1	65±10	Off-white	25:100 (22:100)	1,000	20	1.5	1,820	171	340
RenCast 6402-1	82±7	Off-white	35:100 (31:100)	900	20	1	2,200	180	320
RenCast 6403-1	92±7	Off-white	50:100 (44:100)	800	15	0.5	2,500	470	240
RenCast 6410-1	37±7	Off-white	100:100 (93:100)	1,200	30	4	505	74	330
RenCast 6434**	35-40	Light Amber	25:100 (25:100)	500	17	2	1,100	120	500
RenCast 6442	85±5	Amber	100:100 (100:94)	1,600	28*	4	2,100	290	525
RenCast 6443	95±5	Amber	100:60 (100:60)	2,450	19	2	3,500	375	475

	<i>Hardness, Shore D</i>	<i>Color, Cured</i>	<i>Mix Ratio Isocyanate to Polyol By wt. (by vol.)</i>	<i>Mixed Viscosity* ASTM D-2393, cP</i>	<i>Gel Time ASTM D-2471, min.</i>	<i>Maximum Rec. Casting Thickness, in.</i>	<i>Tensile Strength, ASTM D-638, psi</i>	<i>Flexural Strength, ASTM D-790, psi</i>	<i>Notched Izod Impact, ft.-lb./in.</i>
Shore D Hardness									
RenCast 6405	75±5	White	100:100 (90:100)	240	20	0.5	5,300	6,870	0.7
RenCast 6419	85±5	White	100:80 (100:85)	250	15	0.5	10,000	16,300	0.5
RenCast 6420	77±7	Clear	100:100 (95:100)	1,200	30	1	4,700	6,100	1.3
RenCast 6430	75±3	Off-white	100:50 (100:52)	200	20	0.5	5,900	9,600	0.6
RenCast 6444	60±5	Amber	100:60 (100:60)	2,500	27	2	3,400	1,800	14
RenCast 6463	79	Crystal Clear	100:100 (100:100)	500	21	2	4,800	10,500	1.0
RenCast 178-59-1	88±5	Reddish Brown	36:100 (50:100)	4,000	22	2	5,500	9,000	0.4

Typical demold time for these systems is 12+ hrs. @ 77°F (25°C). Shrinkage of these systems ranges from 0.001-0.003 in./in.

* Mixed viscosity @ 77°F (25°C) after 5 min.

RenCast polyurethanes are comprised of RenCast isocyanates and Ren® polyols.

** Properties are variable by using Ren 6434 Additive. Please see Technical Data Sheet for details.

* Time to reach 20,000 cP

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RenCast[®] Fast Polyurethanes

	Hardness, Shore D	Color, Cured	Mix Ratio Isocyanate to Polyol By wt. (by vol.)	Gel Time ASTM D-2471, min.	Demold Time, hr.	Ult. Tensile Strength, ASTM D-638, psi	Elongation, ASTM D-638, %	Heat Deflection Temperature, ASTM D-648, °F @ 66 psi	Notched Izod Impact, ASTM D-256, ft. lb./in.	Flexural Modulus, ASTM D-790, psi	Thermoplastic Simulated*
RenCast 6432-1 General Purpose, Hand Castable PUR	72	Off-White	100:50 (100:50)	5-6	1-2	5,900	27	163	0.6	234,000	HDPE, PP, ABS
RenCast 6463 Fast Crystal Clear Hand Castable PUR	79	Crystal Clear	100:100 (100:100)	4-6	4	5,700	40	152	1.1	230,000	HDPE, PP, ABS
RenPIM 6486 Slow Ultra High Impact, Hand Castable PUR	67	Amber	100:50 (100:50)	7-8	8	3,600	181	156	6.6	110,000	PE, TPO
RenCast 6491* High Impact, Hand Castable PUR	85	Amber	100:100 (89:100)	4-5	4-6	8,600	27	205	1.2	400,000	ABS

* After thermal postcure

RenCast Fast and RenPIM polyurethanes are comprised of RenCast and RenPIM isocyanates and Ren[®] polyols.

+ HDPE = High density Polyethylene
PP = Polypropylene
ABS = Acrylonitrile-Butadiene-Styrene
TPO = Thermoplastic Olefin
PE = Polyethylene

For more information, contact:

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