

Casting Resins Comparison

Resin	Type	Working Time (Minutes)	Demold Time (Hrs)	Full Cure Time (Days)	Mix Ratio	Wt/Vol	Viscosity (cps)	Heat Deflection (Deg F) (3)	Hardness	Approx Cost	Amt	Shelf Life (Mos)	PPG	Tensile Strength (psi)	Elongagtion (%)
Alumilite:															
<i>Amazing Clear Cast</i>	Epoxy	30-40	24-48	3	1:1	Vol	2600	130	78-80 Shore D	\$122.00	2 Gal	12	\$61.00	8000	1-3
<i>Amazing Clear Cast Plus</i>	Epoxy	30-40	24-48	2-3	1:1	Vol	3000	100	80 Shore D	\$95.00	1 Gal	12	\$95.00	3700	15
<i>Amazing Deep Pour</i>	Epoxy	60-90	24-72	5-7	2:1	Vol	450	108	80 Shore D	\$151.40	1.5 Gal	12	\$100.93	7500	5-6
<i>Clear</i>	Polyurethane	7	.75-1.5	5-7	1:1	Wt	450	140	75-77 Shore D	\$87.50	1 Gal	3	\$87.50	4200	10-15
<i>Clear Slow</i>	Polyurethane	12	.75-1.5	5-7	1:1	Wt	400	140	77-80 Shore D	\$209.94	2 Gal	3	\$104.97	3120	30-40
<i>Liquid Diamonds</i>	Epoxy	30-40	24	1-7	2:1	Wt	250	N/A	78 Shore D	\$149.99	1.5 Gal	12	\$99.99	N/A	N/A
<i>Silmar 41</i>	Polyester	15-20	24	7-10	(1)		400-600	165	38 - 42 Barcol (2)	\$103.50	2 Gal	3	\$51.75	6400	1.5

Footnotes:

- (1) Mix of hardener (MEKP) to resin varies according to thickness
- (2) Barcol 934-1 Reading. A Barcol reading of 60B is approx equivalent to Shore 80 D
- (3) Heat Deflection is the temperature at which cured resin starts deforming. There is an ASTM test method for this. This is helpful to know when working the cast blank (turning, sanding).

Other Notes:

- (1) I did not include information on whether a pressure pot is required or not. As a general rule, any of these resins can be used with a pressure pot. Some will benefit more than others depending upon a multitude of factors (other material being cast, viscosity, thickness, etc.)
- (2) Approximate Costs were based on a quick search. All Alumilite prices were from Amazon. Costs include shipping to my location (New England)