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)
Alumilite:												
Amazing Clear Cast	Epoxy	30-40	3/4 - 1-1/2	3	1:1	Vol	2600	130	78-80 Shore D	$122.00	2 Gal	12
Amazing Clear Cast Plus	Epoxy	30-40	2-4	2-3	1:1	Vol	3000	100	80 Shore D	$95.00	1 Gal	12
Amazing Deep Pour	Epoxy	60-90	24-48	5-7	2:1	Vol	450	108	80 Shore D	$151.40	1.5 Gal	12
Clear	Polyurethane	7	24-48	5-7	1:1	Wt	450	140	75-77 Shore D D	$87.50	1 Gal	3
Clear Slow	Polyurethane	12	24-72	5-7	1:1	Wt	400	140	77-80 Shore D	$209.94	2 Gal	3
Liquid Diamonds	Epoxy	30-40	24	1-7	2:1	Wt	250	N/A	78 Shore D	$149.99	1.5 Gal	12
Silmar 41	Polyurethane	15-20	24-Jan	7-10	(1)		400-600	165	38 - 42 (2)	$103.50	2 Gal	3

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) Several other epoxies often used in the pen making community include Oakbrook Wood Turning Supply and Stones Pen Blanks. There were no Technical Data Sheets on these so there was not enough information on these to include in the chart.

(2) 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.)

(3) Approximate Costs were based on a quick search. All Alumilite prices were from Amazon. Costs include shipping to my location (New England)

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