



# Accura<sup>®</sup> Amethyst

## Specialty Class

High-resolution material for accurate master patterns for jewelry manufacturing

### Post-Cured Material

MEASUREMENT	CONDITION	METRIC	U.S.
Tensile Strength (MPa/PSI)	ASTM D 638	22-38	
Tensile Modulus (MPa/KSI)	ASTM D 638	3514-3996	260-287
Elongation at Break (%)	ASTM D 638	0.56 - 1.04 %	0.56 - 1.04 %
Flexural Strength (MPa/PSI)	ASTM D 790	87-125	7540-10300
Flexural Modulus (MPa/KSI)	ASTM D 790	3652-3721	220-300
Impact Strength (J/m /Ft-lbs/in)	ASTM D 256	9-12	0.66-0.98
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI	77 °C 62 °C	170.6 °F 143.6 °F
Coefficient of Thermal Expansion (µm/m-°C / µm/in-°F)	ASTM E 831-93 TMA (T<Tg, 0-20 °C) TMA (T<Tg, 90-150 °C)	57 µ mm/m °C 133 µ mm/m °C	
Glass Transition (Tg)	DMA, E''	103 °C	217.4 °F
Hardness, Shore D		87	87

### Liquid Material

MEASUREMENT	CONDITION	VALUE
Viscosity	@ 30 °C (86 °F)	350 cps
Penetration Depth (Dp)		3.7 mils
Critical Exposure (Ec)		14.4 mJ/cm <sup>2</sup>
Color		Purple
Solid Density	@ 25 °C (77 °F)	1.23 g/cm <sup>3</sup> at 25 °C
Liquid Density	@ 25 °C (77 °F)	1.1 g/cm <sup>3</sup> at 25 °C
Tested Build Styles		EXACT <sup>™</sup> , FAST <sup>™</sup> , Exact HR <sup>™</sup>

### Features

- Accurate, high-resolution master patterns
- High resolution in X, Y, and Z dimensions
- Manufacture master patterns for jewelry and other microcasting applications



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