



Custom Resins ALM Polymeric Resources

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NYLENE[®] 451

Nylene 451 is recommended for molding applications requiring both maximum durability and toughness. Exceptional fatigue and wear resistance insure long product life to gears, bearings, cams, fasteners, and other load bearing parts. Nylene 451 chemically resists oil and grease. Optimum processing conditions should provide a melt temperature of 460 – 480°F at the nozzle.

PROPERTY	TEST METHOD	UNITS	DAM
Specific Gravity	D792		1.14
Melt Point	D3418	°F °C	420 215
Viscosity			
Tensile Strength	D638	psi MPa	12,000 83
Elongation	D638	%	70
Flexural Modulus	D790	psi MPa	14,800 2690
Notched Izod @ 23 °C	D256	ft. lb./ in. J/m	0.7 37
Notched Izod @ -40 °C	D256	ft. lb./ in. J/m	0.4 @ -40 21 @ -40
DTUL @ 264 psi/1.82 MPa	D648	°F °C	167 75
DTUL @ 66 psi/0.45 MPa	D648	°F °C	347 175
Mold Shrinkage		in/in	0.012
Automotive Approvals			ESF-M4D78-A
UL Flammability Rating	See Flammability brochure for specific colors		94V-2 @ 0.058"

All values are for dry as molded specimens. The data set forth herein has been carefully compiled by Custom Resins. Values shown are typical properties and are not for specification. Since processing variables will affect properties, the reproducibility of our data in a customer's facility is not guaranteed. There is no warranty of any kind either expressed or implied, applicable to the use of this information, and the user assumes all risk and liability in connection therewith.