U-polymer PT-3020

Polyarylate

UNITIKA Plastics Division

Message:

P series resins are resins succeeding the characteristics of the neat polymer, U-100, and improved in flowability and optical properties. Among many super engineering plastics, the resins are few transparent polymer alloys that have heat resistance. The heat-stable P-series resins have variations different in heat resistance in the range from 150 to 175°C. There are few transparent heat-resistant resins among super engineering plastics, and thus P series resins are valuable. The resins have favorable weather resistance, and in particular, the P- 1001 resin is approved by SAE Standard (J576 and J578) and FMVSS Standard (108). Making the most of these characteristics, the resins may be used, for example, as the lenses for automobile lamps. High flow-type resins, P-1001A, and P-3001S, are also available for thin molding products.

General Information			
UL YellowCard	E47924-239922	E47924-239927	
Features	Good dimensional stability Rigidity, high High elasticity Optical Impact resistance, good Good creep resistance Good liquidity Good weather resistance Heat resistance, high Thermal Stability amorphous		
Uses	Application in Automobile Field		
Forms	Particle		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.36	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow: 3.00mm	0.30 - 0.40	%	ASTM D955
Transverse flow: 3.00mm	0.40 - 0.50	%	ASTM D955
Water Absorption (24 hr, 3.18 mm)	0.12	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	67.0	MPa	ASTM D638
Tensile Elongation (Break)	6.0	%	ASTM D638
Flexural Modulus	3800	MPa	ASTM D790
Flexural Strength	111	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	60	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**

Deflection Temperature Under Load (1.8 MPa, Unannealed)	165	°C	ASTM D648
Linear thermal expansion coefficient			ASTM D696
Flow	3.7E-5	cm/cm/°C	ASTM D696
Lateral	4.2E-5	cm/cm/°C	ASTM D696

Additional Information

CLTE, Flow, ASTM D696: 3.5E-5 to 4.0E-5 cm/cm/°CCLTE, Tranverse, ASTM D696: 3.8E-5 to 4.3E-5 cm/cm/°C

Recommended distributors for this material

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