

# Duron PEI 5001

Polyether Imide

ProPolymers Inc.

## Message:

Duron PEI 5001 is a polyetherimide copolymer that offers very good chemical resistance compared to our PEI 1000 resin. It has a superior combination of mechanical, electrical, and thermal properties. PEI is inherently flame resistant with low smoke emission. It also has better ductility and processability than PEI 1000.

General Information			
Features	Low smoke		
	Copolymer		
	Workability, good		
	Good chemical resistance		
	ductility		
	Flame retardancy		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.28	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	4.2	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow: 3.18mm	0.40 - 0.70	%	ASTM D955
Transverse flow: 3.18mm	0.50 - 0.70	%	ASTM D955
Water Absorption (24 hr)	0.16	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	110		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	100	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	8.0	%	ASTM D638
Fracture	70	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength	138	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	210	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648
Vicat Softening Temperature	219	°C	ASTM D1525
CLTE - Flow	5.5E-5	cm/cm/°C	ASTM D696
Additional Information			
Notched Izod Impact, ASTM D256: 8 kJ/m <sup>2</sup> Unnotched Izod Impact, ASTM D256: No Break kJ/m <sup>2</sup>			

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