

PAI Torlon® 4301

Polyamidimid

General properties	Test method	Unit	Guideline Value
Specific Gravity	ASTM D792	g/cc	1,45
Water Absorption	ASTM D570(2)	%	0,4
Water Absorption at Saturation	ASTM D570(2)	%	1,5
Mechanical properties			
Hardness, Rockwell M	ASTM D785		M106
Hardness, Rockwell	ASTM D785		E70
Hardness, Shore D	ASTM D2240		90
Tensile Strength, Ultimate	ASTM D638	Mpa	138
Elongation at Break	ASTM D638	%	5
Tensile Modulus	ASTM D638	Mpa	6200
Flexural Modulus	ASTM D790	Mpa	5520
Flexural Yield Strength	ASTM D790	Mpa	159
Compressive Strength	10% Def.; ASTM D695	Mpa	152
Compressive Modulus	ASTM D695	Mpa	6,552
Izod Impact (notched)	ASTM D256 Type A	J/M	42
Thermal properties			
Melt Point/Tg	ASTM D3418	°C	275
Heat Deflection Temp (264 psi)	ASTM TMA	°C	278
Coefficient of Linear Thermal Expansion	E831 TMA		$2.5 \times 10^{-5} \text{ C}^{-1}$

The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated off injection molded test specimens run under near perfect conditions. Extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity resulting from processing and fiber alignment inherent in all reinforced plastic shapes, regardless of process.