

HellermannTyton TYPICAL MATERIAL PROPERTIES	PAEK Polyaryetherketone (Impact Modified PEEK)	SPECIFICATION NUMBER MTS1908CSU		
		Issued By: VM 11/19/12 Checked By: KAC 08/03/16	REVISION Level:...02 Date:...08/03/16 By...LG ECN#:...013511	Page 1 Of 2

DESCRIPTION

When compared to PEEK, PAEK shows increased flexibility and impact resistance at a reduced operating temperature. This PAEK (polyaryl ether ketone) polymer is unreinforced that offers more ductility and impact strength than PEEK, with higher chemical and environmental stress cracking resistance. It has been specifically formulated for applications requiring a balance of chemical resistance and mechanical strength along with good part aesthetics and high temperature resistance, bridging the gap within the high temperature polymer space.

These properties make it well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses.

PAEK can be easily processed by typical injection molding and extrusion methods using conventional processing equipment.

Commercial Name: PAEK, Polyaryl ether ketone
Catalog Code: PAEK
Chemical Name: Polyaryl ether ketone
Used On: Snapper clamps and structural components

GENERAL PERFORMANCE CHARACTERISTICS

Heat Resistance	High
High Impact	Good
Ductility	Good
Fatigue Resistant	Yes
Inherently Flame Retardant	Yes
Radiation (Gamma) Resistant	Yes
Steam Resistant	Yes
Good Dimensional Stability	Yes

PERFORMANCE ADDITIVES

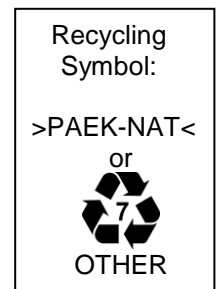
Glass	None
Mineral	None
Carbon Black	None


CHEMICAL RESISTANCE

Acids	Excellent
Bases	Excellent
Solvents	Excellent for most solvents but poor with Methylene Chloride
Gasoline	Excellent
Oil	Excellent

MAJOR TOXIC ELEMENTS

No significant hazards associated with this material.



 TYPICAL MATERIAL PROPERTIES	PAEK Polyaryetherketone (Impact Modified PEEK)	SPECIFICATION NUMBER MTS1908CSU		
		Issued By: VM 11/19/12 Checked By: KAC 08/03/16	REVISION Level:...02 Date:...08/03/16 By...LG ECN#:...013511	Page 2 Of 2

PROPERTIES CHART

		Units	Test Method
<u>FLAMMABILITY</u>			
Flammability @ 0.75, 1.5 and 3.0 mm	TBD, V-0 anticipated	-	
<u>PHYSICAL</u>			
Specific Gravity	1.34	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 Kg)	55	g/10min	ASTM D1238
Water Absorption – 24 hr	0.3	%	ASTM D570
<u>MECHANICAL & IMPACT</u>			
Tensile Strength	97.0 (14100)	MPa (psi)	ASTM D638
Tensile Strain @ Yield @ Break	6.3 >15	%	ASTM D638
Tensile Modulus	3200 (464000)	MPa (psi)	ASTM D638
Flexural Modulus	3300 (479000)	MPa (psi)	ASTM D790
Flexural Strength	141 (20500)	MPa (psi)	ASTM D790
Notched Izod Impact	64	J/m (ft-lb/in)	ASTM D256
Unnotched Izod Impact	No break	J/m (ft-lb/in)	ASTM 4812
Instrumented Dart Impact	78.0 (690)	J (in-lb)	ASTM D3763
<u>THERMAL</u>			
Continuous Operating Temp	200 (392)	°C (°F)	⁽¹⁾ Mfg
Deflection Temperature Under Load 1.8 MPa (264 psi), Annealed, 3.2mm (0.126in)	208 (406)	°C (°F)	ASTM D648

(1) HT-Internal evaluation using PAT100L up to 3,000 hrs per ITS-0011 & ITS-0019

This document is intended as a general guide, in the material selection for a product, but does not guarantee satisfactory performance. All materials selected must be thoroughly tested in its intended application to determine its suitability. Consult a HellermannTyton Representative for assistance in the final material selection.

The information contained herein is believed to be accurate at the time of printing. However, this information has been obtained from a variety of sources and has not been independently verified by HellermannTyton Corporation; therefore, we cannot warrant fitness for a particular application. Furthermore, HellermannTyton Corporation reserves the right to make changes to this document, at any time, without notice to our customers.