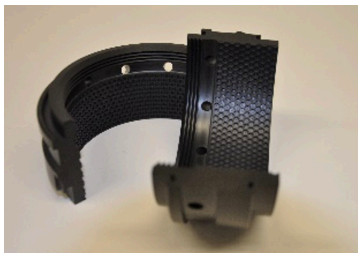
The ENERGY Forum

PORT PLASTICS

ENSINGER TECAPEEK CM XP98, XP98 HT

ENSINGER SPECIAL POLYMERS SPECIALIZES IN DEVELOPING COMPRESSION MOLDED FORMULATIONS SPECIFICALLY FOR THE OIL AND GAS INDUSTRY.

Ensinger Special Polymers offers several different VICTREX® PEEK blends and has the capability to blend custom compounds that align with your application. Typical fillers are glass fiber, carbon fiber, graphite, moly and PTFE. Both XP98, HT XP98, Peek blends are Compression molded resulting in lower amounts of scrap, uniform physical properties and reduced molded-in stresses. Tested lot material is available from Ensinger Special Polymers upon request. Best-in-class Quality Inspection methods are applied to ensure the superior quality and performance.



Both TECAPEEK CM XP98 & HT XP98 are a high-performance engineered thermoplastic. These semi-crystalline materials have a balance of mechanical properties, chemical and steam resistance, excellent dimensional stability, superior wear properties and processability which makes it unique for critical applications. With both compounds having good chemical resistance which makes them suitable for critical bearing and labyrinth seal applications in contact with sour gas and other corrosives. A great choice for metal replacements due to pitting, galling, and increasing MTBF.

MAIN FEATURES

- Broad chemical resistance
- Good heat deflection temperature
- Inherent flame resistance
- Hydrolysis and superheated steam resistant
- High stiffness
- High creep resistant
- Excellent dimensional stability
- Resistance against high energy radiation

TARGETED MARKETS

- Aircraft and Aerospace technology
- Automotive industry
- Conveyor technology
- Oil and Gas industry
- Centrifugal Compressors
- Chemical/Petro-Chemical plant engineering

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USING POLYMERS INCREASES THE THROUGHPUT OF NATURAL GAS AND METHANE

Within the turbo compressor industry, machined aluminum seals were commonly used, however, machined polymer seals have begun to replace the metal seals due to efficiency, ease of installation, and removal, including increasing dynamic operation of Centrifugal equipment. In pumps, machined metal bushings, wear rings, guide rings, and other components can be improved by replacing them with engineered polymers to improve day-to-day operation and efficiency.

Look to Ensinger Special Polymers as your provider of consistent high-quality compression molded stock shapes of engineering thermoplastics for critical and non-critical applications in various markets. Ensinger Special Polymers is committed to researching and developing new processes for new polymers and applications widely used throughout the Energy market.

TYPICAL MATERIAL DATA FOR ENSINGER'S CM PEEK COMPOUND

Tecapeek Compound	Properties	Values	Unit	Test Methods
XP98 CM CF30	Tensile Strength	19,000	PSI	ASTM D 638
	TE @ break	2.5	%	ASTM D 638
	Comp Strength @10% Strain	32,000	PSI	ASTM D 695
	Shore D Hardness	93		ASTM D 2240
	Specific Gravity	143	GM/CM^3	ASTM D 792
	HDT	459	°F	ASTM D 648
XP98 HT CM CF30 (PEK)	Tensile Strength	20,000	PSI	ASTM D 638
	TE @ break	3.2	%	ASTM D 638
	Comp Strength @10% Strain	36,500	PSI	ASTM D 695
	Shore D Hardness	94		ASTM D 2240
	Specific Gravity	143	GM/CM^3	ASTM D 792
	HDT	N/A	°F	ASTM D 648