

PRODUCT TECHNICAL DATA SHEET

KyronMAX® S-4340

Hi-Temp PPA Based Structural Compound
Product benefits

- Formulated to have higher Tg than PEEK
- Ideal for high-temp applications
- High stiffness
- High Thermal Resistance
- Low moisture absorption
- Low swell
- Chemical resistance

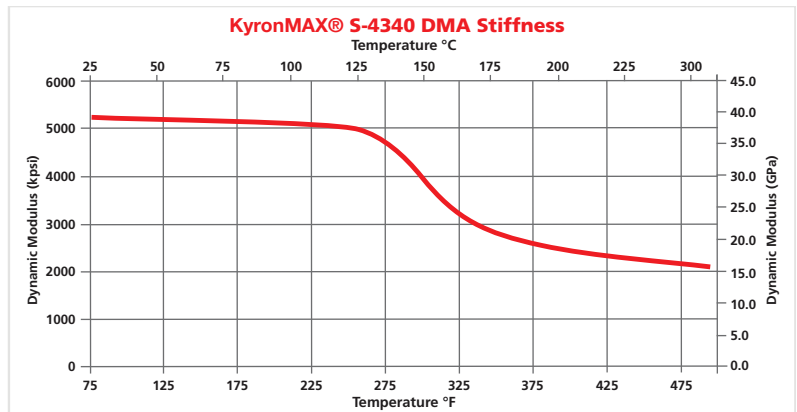
Industrial/Application Examples

- Automotive – bushings, washers, pistons, brackets, handles
- Aerospace – latches, rings, hinges, spacers, seals, adapters
- Electrical – pins, fasteners, end effectors, connectors, panels
- Medical – clamps, vanes, housings, bushings, gears, valves
- Energy – seals, bearings, plugs, umbilicals, back-up rings
- Industrial – valve plates, column packing, gears, valve seats

MECHANICAL	Test Method	English		Metric	
		Typical Value	Unit	Typical Value	Unit
Specific Density	ASTM D792	1.40	g/cm ³	1.40	g/cm ³
Tensile Strength	ASTM D638	51,000	psi	352	MPa
Tensile Modulus of Elasticity	ASTM D638	6,250,000	psi	43	Gpa
Tensile Elongation	ASTM D638	1.10	%	1.10	%
Flexural Strength	ASTM D790	75,000	psi	517	MPa
Flexural Modulus of Elasticity	ASTM D790	5,250,000	psi	36	GPa
Notched Izod Impact	ASTM D256	1.6	ft-lb/in	82	J/m
Unnotched Izod Impact	ASTM D4812	13	ft-lb/in	689	J/m
THERMAL					
Glass Transition (Tg)	ASTM D3418	275	°F	135	°C
Melting Point	ASTM D3418	582	°F	305	°C
ELECTRICAL					
Flammability	UL 94	TBD		TBD	
CHEMICAL					
Moisture, 24 hours	ASTM D570	0.175	% by wt	0.175	% by wt

KyronMAX® materials are lightweight and, when molded, parts are 75% lighter than steel and almost 40% lighter than aluminum. By utilizing the lower density of KyronMAX®, customers can simultaneously realize lower costs and lighter parts, while also taking advantage of unmatched tensile and toughness properties.

The better “practical toughness” values are achieved with lower filler loading, which increases the material’s elongation at yield. KyronMAX® molded parts are more likely to yield, rather than fracture under high-stress loads. KyronMAX® stronger fibers and lower filler loadings further elevate molded product performance with significantly better knit line strength compared to other filled polymers.



Aluminum bracket with half FEA analysis (left) and KyronMAX® final molded part (right). The FEA analysis is used to translate a metal part into a lightweight plastic molded part, while matching or exceeding the strength and stiffness of the original metal part.

Mitsubishi Chemical Advanced Materials (MCAM) can take your metal parts and use our proprietary Finite-Element Analysis (FEA) to engineer a high-performance product with KyronMAX® materials. MCAM’s unique FEA data offers a solution to accurately predict the mechanical performance of a part in real world applications with key features including mechanical stress, plastic injection molding flow, fatigue, and motion.

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