

Epic Vypur™ M Series

Sample Application: Drive-gear

Product: Premium Grade Polyurethane

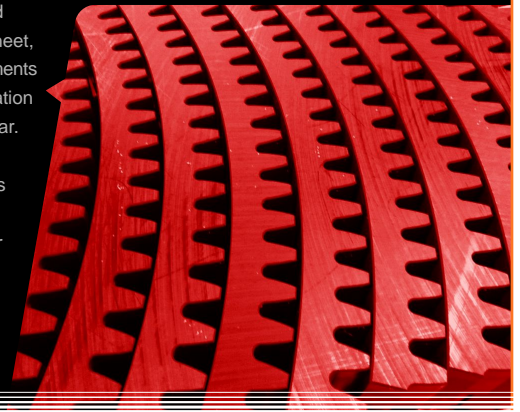
Colour: Various

Duro: 60D, 75D

Designation: PU, PUR (Cast Elastomeric Polyurethane)

Format: Sheet, Rod, Tube and Custom Molded Parts

Incredibly tough and precision cut from sheet, these drive-gear segments are bolted into application to form a large ring gear. Vypur™ M75 lowers nuisance noise, reduces maintenance frequency, are lightweight and faster to install.



A high-performance mechanical grade of polyurethane designed for applications where strong plastic-like mechanical properties are required to be coupled with urethane's exceptional impact, wear and abrasion resistance.

Vypur™ 'M' series cast polyurethanes are tough and strong plastic-like polymers which can be depended upon to retain their original shape and properties for a long service life. Cost effective and dependable, these elastomers combine some of the performance advantages of engineered plastics, metals and ceramics along with the resiliency and flexibility of rubber.



Strong



Wear Resistant



Light



Impact Resistant

Core Advantages:

Cast Polyurethanes are renowned for their high load bearing capacity, high impact strength, high abrasion resistance, high resilience and excellent resistance to oil and grease. Often used where resistance to the actions of sliding, stretching, load-bearing, impacting, cutting and tearing, compression, torsional forces, aging and oil-resistance are involved.

Limitations:

- ▶ Avoid operation in the presence of water above +90°C as urethane can hydrolyse
- ▶ Colour can darken in exposure to UV
- ▶ Care must be taken when designing parts in dynamic applications to avoid excessive heat generation via hysteresis

Typical Applications

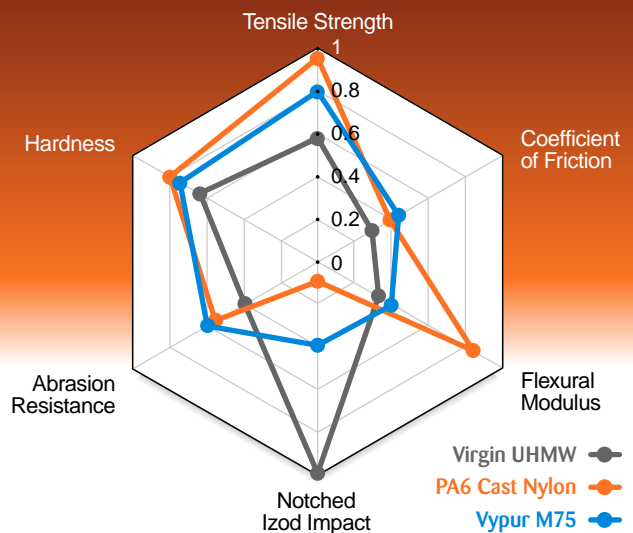
- ▶ Gears
- ▶ Pulleys
- ▶ Wheels
- ▶ Sprockets
- ▶ Bushings
- ▶ Slider pads
- ▶ Guides
- ▶ Load pads
- ▶ Various mechanical parts

Toll Free: 1.855.625.8800
www.EpicPolymer.com



EPIC
POLYMER

Beyond Industrial Strength™



CANADA: Unit 2 - 19695 92A Avenue
Langley, BC V1M 3B3

USA: 1901 Schurman Way
Woodland, WA 98674

Epic Vypur™ M Series

Premium Grade Polyurethane

Properties	Specification	Units	Typical Value	Typical Value
Grade			M60	M75
Colour			Black	Red
Durometer (Hardness)	ASTM D 297	Shore "D"	60 +/-5	75 +/-5
Specific Gravity	ASTM D 297	g/cc	1.16	1.21
Tensile Strength	ASTM D 412	psi	6700	8000
100% Modulus	ASTM D 412	psi	3600	5000
Flexural Modulus, 1 in/min	ASTM D 412	psi	-	140,000
Ultimate Elongation	ASTM D 412	%	290	210
Compression Set - 22 hr @ +70°C	ASTM D 395, Method B	%	28	55
Temperature Range		°C (°F)	-20° to +92°C (-40° to +200 °F)	-40° to +92°C (-40° to +200 °F)
Bell Brittle Point	ASTM D 746 - 13	°C (°F)	-57 (-70)	-50 (-58)
Bayshore Rebound		%	40	35
Notched Izod Impact	ASTM D 476	ft-lb/in	-	14-18
Abrasion Resistance	DIN	mm ³	100	115
Tear Resistance, Initial	ASTM D 624, Die C	pli	630	628
Tear Resistance, Propogation	ASTM D 470	pli	115	120

Unless otherwise stated, all Epic sheet rubber is provided to standard RMA Rubber Tolerances.

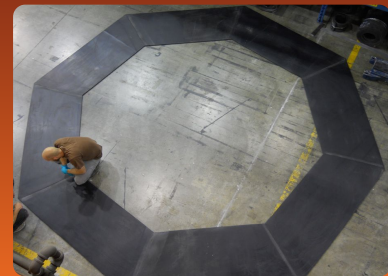
Chemical Resistance

For detailed Chemical Resistance, please consult the Epic Polymer Material Chemical Compatibility Chart

Design Considerations:

Epic Polymer recommends contacting us directly for input on design considerations and engineering.

Ask us about our custom cutting, stamping and fabricating services: All sheet rubber products are available in many formats, including full rolls, sheets, cut- to-size strips and blocks as well as custom-fabricated and die-cut parts. Epic Polymer offers a quick-ship service to process in-stock sheet orders in as little as 24 hours if required.



Toll Free: 1.855.625.8800 www.EpicPolymer.com

PLEASE NOTE: THIS INFORMATION IS PROVIDED TO ALLOW COMPARATIVE EVALUATION OF EPIC POLYMER'S VARIOUS MATERIALS VS OTHER MATERIALS. ALL INFORMATION SUPPLIED BY EPIC POLYMER SYSTEMS CORP IN RELATION TO ITS PRODUCTS, WHETHER IN THE NATURE OF DATA, RECOMMENDATIONS OR OTHERWISE, IS SUPPORTED BY RESEARCH AND BELIEVED TO BE RELIABLE. NO LIABILITY WHATSOEVER SHALL ATTACH TO EPIC POLYMER SYSTEMS CORP. FOR ANY INFRINGEMENT OF THE RIGHTS OWNED OR CONTROLLED BY A THIRD PARTY IN INTELLECTUAL, INDUSTRIAL OR OTHER PROPERTY BY REASON OF THE APPLICATION, PROCESSING OR USE OF THE AFORE-MENTIONED INFORMATION OR PRODUCTS.

CANADA: Unit 2 - 19695 92A Avenue
Langley, BC V1M 3B3

USA: 1901 Schurman Way
Woodland, WA 98674