

# Epic Vypur™ Ultra66

## Sample Application: Transmission Gasket

**Product:** Premium Grade Polyurethane

**Colour:** Black

**Duro:** 60A

**Designation:** PU, PUR (Cast Elastomeric Polyurethane)

**Format:** Sheet, Rod, Tube and Custom Molded Parts

This transmission gasket made from Vypur™ Ultra66 offered exceptional compression-set and oil resistance, proving to be the only material that would survive the rugged service conditions, yet still be re-usable for multiple maintenance cycles.



An engineered elastomer grade of polyurethane designed for applications where very-soft, elastic rubber-like properties are required in combination with a low-compression set and exceptional abrasion, solvent and oil resistance.

Cast polyurethanes are tough, rubbery materials 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 engineering plastics, metals and ceramics along with the resiliency and flexibility of rubber.



**Cut & Tear Resistant**



**Corrosion Resistant**



**Strong**



**Impact Resistant**



**Elasticity**



**Oil Resistant**

### Core Advantages:

- ▶ Excellent elasticity and resilience
- ▶ Excellent compression set
- ▶ Excellent Oil & Solvent resistance

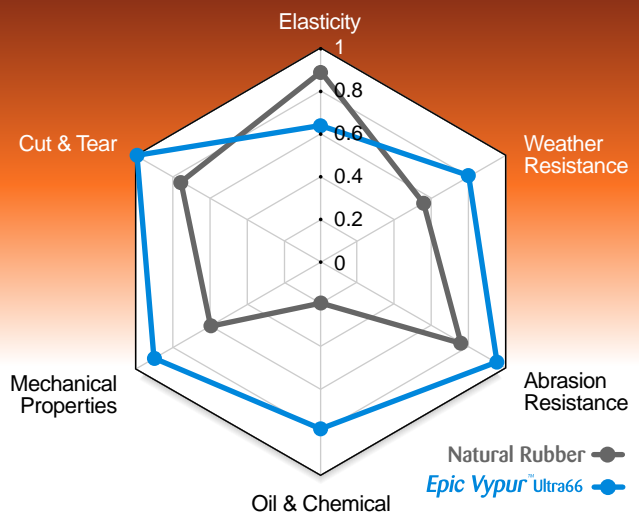
### Limitations:

- ▶ 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

- ▶ Shaft seals
- ▶ Transmission gaskets
- ▶ Bumpers
- ▶ Pulley & roll covers
- ▶ Impact pads
- ▶ Wipers & squeegees
- ▶ Sorter wheels

**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™ Ultra66**

Premium Grade Polyurethane

Properties	Specification	Units	Typical Value
Grade			Ultra66
Durometer (Hardness)	ASTM D 297	Shore "A"	60 +/-5
Specific Gravity	ASTM D 297	g/cc	1.16
Tensile Strength	ASTM D 412	psi	4350
100% Modulus	ASTM D 412	psi	300
Flexural Modulus, 1 in/min	ASTM D 412	psi	500
Ultimate Elongation	ASTM D 412	%	480
Compression Set - 22 hr @ +70°C	ASTM D 395, Method B	%	6
Temperature Range		°C (°F)	-60° to +83°C (-76° to +181°F)
Bayshore Rebound		%	30
Notched Izod Impact	ASTM D 476	ft-lb/in	Flexed
Tear Resistance, Initial	ASTM D 624, Die C	pli	190
Tear Resistance, Propagation	ASTM D 470	pli	22

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

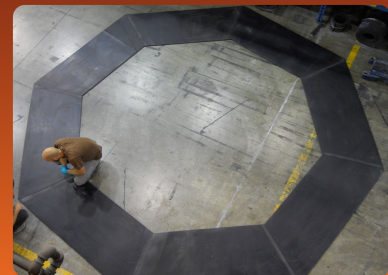
**Chemical Resistance**

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](http://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