

# Epic Vypur™ S Series

**Product:** Premium Grade Polyurethane

**Colour:** Various

**Duro:** 54A, 70A, 80A (20A - 95A available on request)

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

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

## Sample Application: Bump Stop

Exceptional oil-resistance coupled with toughness and impact resistance make Vypur™ S1080 an exception alternative to the OEM Rubber bump-stop bushings for articulated earthmoving equipment. Costly change-outs and unexpected failures are dramatically reduced, resulting in lower operating costs



An engineered elastomer grade of polyurethane designed for applications where softer, rubber-like properties are required with a longer lifespan.

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 engineered plastics, metals and ceramics along with the resiliency and flexibility of rubber.



**Strong**



**Oil Resistant**



**Abrasion Resistant**



**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 chosen where resistance to the actions of sliding, stretching, load-bearing, impacting, cutting and tearing, compression, torsional forces, aging and oil-resistance are involved.

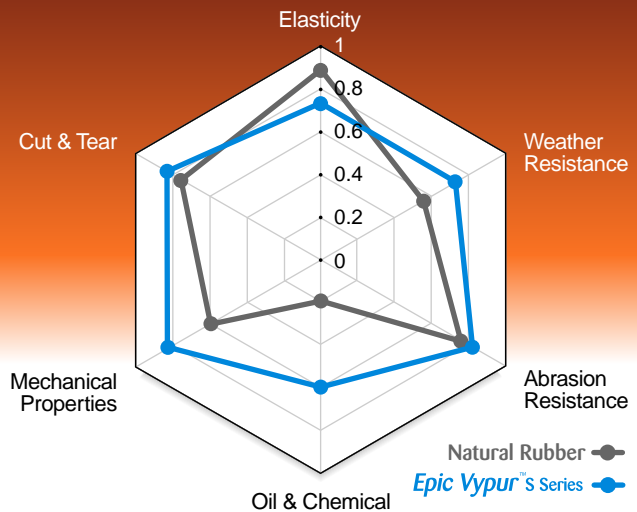
## Limitations:

- ▶ 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

- ▶ Bumpers
- ▶ Liners
- ▶ Roll-covers
- ▶ Wheels
- ▶ Belt skirting
- ▶ Seals & gaskets
- ▶ Impact pads
- ▶ Anti-vibration pads
- ▶ Wipers

**Toll Free: 1.855.625.8800**  
**www.EpicPolymer.com**



**Beyond Industrial Strength™**

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

**USA:** 1901 Schurman Way  
Woodland, WA 98674

**Epic Vypur™ S Series****Premium Grade Polyurethane**

Properties	Specification	Units	Typical Value	Typical Value	Typical Value
Grade			1050	1070	1080
Colour			Purple	Green	Orange
Durometer (Hardness)	ASTM D 297	Shore "A"	54 +/-5	70 +/-5	80 +/-5
Specific Gravity	ASTM D 297	g/cc	1.2	1.25	1.24
Tensile Strength	ASTM D 412	psi	3400	5000	7000
100% Modulus	ASTM D 412	psi	270	370	640
Flexural Modulus, 1 in/min	ASTM D 412	psi	580	470	1230
Ultimate Elongation	ASTM D 412	%	470	630	590
Compression Set - 22 hr @ +70°C	ASTM D 395, Method B	%	-	30	23
Temperature Range		°C (°F)	-60° to +83°C (-76° to +181°F)	-60° to +83°C (-76° to +181°F)	-60° to +83°C (-76° to +181°F)
Bayshore Rebound		%	-	32	35
Notched Izod Impact	ASTM D 476	ft-lb/in	Flexed	Flexed	Flexed
Tear Resistance, Initial	ASTM D 624, Die C	pli	-	260	430
Tear Resistance, Propogation	ASTM D 470	pli	15	70	105

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

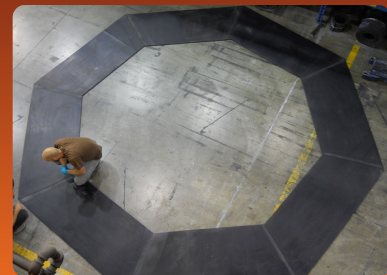
**Chemical Resistance**

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.



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