

# Epic Vypur™ SVI Series

**Product:** Premium Grade Polyurethane

**Colour:** Various

**Duro:** 85A, 90A, 95A

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

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

**Sample Application:** Bucketwheel Liner

An international OEM wanted their shovel-buckets to outlast those of their competitors. The objective was to extend the life of the hardened steel bucket. The solution involved fabricating sheets of Vypur™ SVI which could be quickly and easily replaced when required and outlasted the unprotected steel by almost 8x.



A high-performance elastomer grade of polyurethane designed for applications where exceptional wear and abrasion resistance is required due to shock, vibration and impact.

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.



**Weather Resistant**



**Cut & Tear Resistant**



**Impact Resistant**



**Elasticity**

**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.

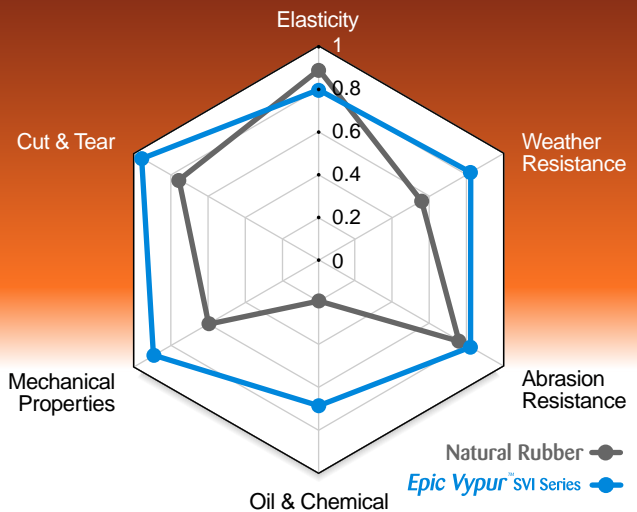
**Limitations:**

- ▶ 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**

- ▶ Wheels & pulley lagging
- ▶ Protective chute liners
- ▶ Spouts
- ▶ Impact bumpers
- ▶ Anti-vibration pads
- ▶ Load bearing pads
- ▶ Wheels & castors
- ▶ Wear liners
- ▶ Springs
- ▶ Bushings
- ▶ Wipers
- ▶ Idle wheels
- ▶ Belt scrapers
- ▶ Seals & gaskets

**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™ SVI Series****Premium Grade Polyurethane**

Properties	Specification	Units	Typical Value	Typical Value	Typical Value
Grade			SVI85	SVI90	SVI95
Colour			Yellow	Yellow	Blue
Durometer (Hardness)	ASTM D 297	Shore "A"	83 +/-5	90 +/-5	95 +/-5
Specific Gravity	ASTM D 297	g/cc	1.07	1.11	1.13
Tensile Strength	ASTM D 412	psi	4950	5800	6500
100% Modulus	ASTM D 412	psi	800	1100	1800
Flexural Modulus, 1 in/min	ASTM D 412	psi	1500	2200	4300
Ultimate Elongation	ASTM D 412	%	490	430	380
Compression Set - 22 hr @ +70°C	ASTM D 395, Method B	%	25	30	36
Temperature Range		°C (°F)	-40° to +92°C (-40° to +200°F)	-40° to +92°C (-40° to +200°F)	-40° to +92°C (-40° to +200°F)
Bell Brittle Point	ASTM D 746 - 13	°C (°F)	-63° (-80)	-63° (-80)	-63° (-80)
Bayshore Rebound		%	58	42	40
Notched Izod Impact	ASTM D 476	ft-lb/in	Flexed	Flexed	Flexed
Abrasion Resistance	DIN	mm <sup>3</sup>	35	55	70
Tear Resistance, Initial	ASTM D 624, Die C	pli	530	600	700
Tear Resistance, Propagation	ASTM D 470	pli	75	90	130

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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