

ULTRAPRINT

Resilient Elastomer RE80

RE80 is a high-performance, production-grade elastomer material featuring excellent extensibility, tear resistance, rebound resilience, environmental durability, and is skin-contact safe. Its overall performance is comparable to TPU.

With a shore hardness of 80A, it delivers superior support performance. Compared to RE70, RE80 enables a 30% weight reduction in lattice designs while maintaining equivalent supportability. Ideal for applications requiring high resilience and lightweight construction, including whole shoes, shoe midsoles, and flexible fixtures.



-  3.4% low compression set
-  High tear resistance
-  Flex resistance >750,000 cycles*
-  Lightweight lattice structure
-  Single-component material efficient post-processing
-  Skin-safe

Color

- Black
- Translucent

Specification

2000g/Bottle

*Ross flex test per ASTM D1052, 2 mm thick test model.

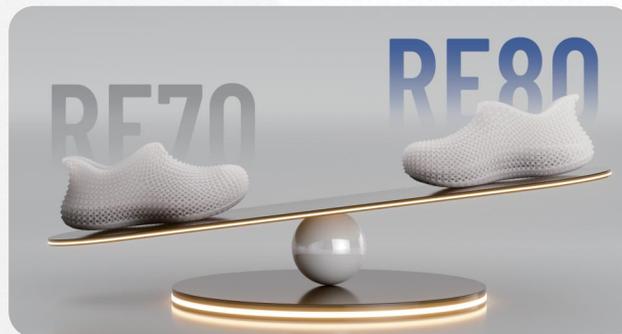
Basic Performance¹

	Property	Standard	Results (RE80K)	Results (RE80T)	Unit
Toughness	Elongation at Break	ASTM D412	218	234	%
Strength	Tensile Strength	ASTM D412	25	32	MPa
	Tear Strength	ASTM D624	60		N/mm
Others	Rebound Resilience Test	ISO 4662	48		%
	Compression Set	ASTM D395	3.4		%
	Hardness	ASTM D2240	80		Shore A
	Viscosity	ASTM D4212	4900		mPa·s
Additional Passed Tests	Thermal Accelerated Aging Test ²	YY/T 0681.1	1600		h
	Damp Heat Test	GB/T 2423.3	✓		/
	Temperature Change Test	GB/T 2423.22	✓		/
	Color Fastness Test	ISO 105-E04	✓		/
	In Vitro Cytotoxicity Test	ISO 10993-5	✓		/
	Skin Sensitization Test	ISO 10993-10	✓		/
	Skin Irritation Test	ISO 10993-23	✓		/
	ROSS Flex Test	ASTM D1052	2 mm specimen >750,000 cycles 6.35 mm lattice >250,000 cycles		/
	Taber Abrasion Test	ASTM D4060	64 mg <100 mg H-22 1000 cycles		/

Exceptional Results



Fatigue-resistant & Tear-resistant



Lightweight

Compliant with:

- US California Proposition 65³
- EU ROHS Directive

¹ Data from HeyGears Lab. Results are average values with ±10% deviation.

² Equivalent to 1 year of outdoor use, the material's properties degrade by less than 30%, with a non-significant color change ($\Delta E < 2$) and a dimensional deviation of ± 0.1 mm.

³ Passed the CP65 test (Bisphenol-A, Lead, Cadmium, Phthalates)

Sample Request

