



Overview

WICSilicone HTV Self-Lubricating Silicone is a high-performance elastomer designed for applications requiring low friction and enhanced wear resistance. Engineered with self-lubricating properties, this silicone reduces friction without the need for external lubricants, ensuring long-term durability and reliability.

ISO 9001

Batch-tested

ASTM / ISO Verified

Fully traceable

RoHS / REACH Compliant

Technical Specifications

Property	SL-70	SL-60	SL-50	SL-40	SL-30	Test Method
Hardness (Shore A)	70	60	50	40	30	DIN 53 505
Tensile Strength (MPa)	5.36	5.67	6.26	5.573	4.03	DIN 53 504
Elongation at Break	210%	321%	491%	604.396%	582.75%	ASTM-D 624 die B
Tear Strength (N/mm)	4.92	9.42	16.39	18.86	18.7	DIN 53 504
Test Condition C°/min	130/4	130/4	130/4	130/4	130/4	
Selica Based	Fumed	Fumed	Fumed	Fumed	Fumed	
Curing Agent	DCBP	DCBP	DCBP	DCBP	DCBP	
Rebound Resilience (%)	40					DIN 53 512
Specific Gravity (cm ³)	1/24					
Compression set	2.5%					DIN 53 517
Temperature Range	-50°C to +250°C					
Appearance	Transparent / translucent					



Features & Benefits

Durability

Resistant to UV, ozone, and chemicals; maintains shape and seal after compression.

Mechanical Strength

High tensile, tear, and compression recovery; excellent stretchability for dynamic components.

Quality Assurance

ISO 9001 certified, batch-tested for strength & durability, fully traceable documentation.

Cost-Effective

Premium performance at competitive pricing for industrial applications.

Versatility

Medium density and consistent performance; suitable for extrusion, molding, and precision parts.

Customizable

Default white, can be color-matched; hardness and form tailored to specific needs.

Compliance & Certifications

- **ISO 9001:** Quality Management
- Batch-tested for strength & durability
- Fully traceable batch documentation
- ASTM / ISO standards verified
- **RoHS / REACH compliant**



Typical Applications

WICSilicone HTV Self-Lubricating Silicone is engineered for moving parts and components that demand low friction and durability without external lubricants. Applications include:

Automotive

Low-friction seals, gaskets, connectors exposed to repeated motion.

Medical Device

seals, valves, tubing requiring smooth movement.

Industrial Equipment

O-rings, grommets, and bearings in dynamic assemblies.

Consumer Goods

wearable devices, seals in sliding/rotating parts

Processing & Handling

- Designed for HTV compression, transfer, or injection molding; also suitable for extrusion of self-lubricating profiles.
- Compatible with **peroxide curing** and addition-curing (platinum) systems
- Self-lubricating properties are **inherent** and remain effective after curing
- Recommended **post-cure: 200 °C for 2-4 hours** to optimize mechanical and friction-reducing properties
- Recommended processing temperature range: **110–200 °C**, depending on grade and part geometry.



Packaging & Storage

- Supplied in **vacuum-sealed 20 kg cartons** or **custom packaging** upon request.
- **Shelf life:** 12 months under recommended storage conditions.
- Store in a **cool, dry place, away from heat, sunlight, and contamination**
- Keep containers **tightly closed** to prevent contamination.
- Allow material to **reach room temperature before use** to ensure consistent processing.

The information contained herein is believed to be accurate. Users should verify the suitability of the product for their application. Wire Iran is not responsible for improper use.