



Electrochem[®]
Ultra Performance Silicones & TPE
ELECTROCHEM SILICONES LTD

Ultra Performance
Silicones & Polymers
Silicone Profiles
& Compounds for Industry





Electrochem[®]
Ultra Performance Silicones & TPE

Welcome to our Company!

ELECTROCHEM SILICONES Ltd[®] designs, produces and distributes Ultra Performance Silicone and Plastic tubing, special parts and extruded profiles for **medical applications, industrial applications for food & beverage** a.o. using over 45 years of scientific experience.

Our Company uses highest quality Silicone Elastomers, Latex free, Thermoplastic & Specialty Polymers with long term tested chemical formulas, and offers in the world market products in conformity to International Standards i.e. **ISO 9001:2008, ISO 13485:2012, Directives 93/42/EEC & 10/2011/EU, European Pharmacopoeia, United States Pharmacopoeia, FDA, USP** a.o.

Our product portfolio is mainly addressed to markets with strict specifications and includes:

- **Extruded Silicone Elastomer Profiles** for all kind of applications
- **Silicone Compounds** for cold, heat, flame, oil, arc resistance a.o.

Our Silicone Profiles & Silicone Compounds Portfolio is based on over 1500 chemical formulations and features:

- High tear strength, up to 30 MPa
- Very high elongation (>1000%, special grades)
- Long service life at high temperatures up to 300°C
- Heat and flame resistance
- Excellent media resistance, i.e. solvents, acids, glycols, gases
- Use in automotive industry; hoses and gaskets for turbochargers, retarders a.o.
- Oil resistance
- Perfect sealing
- Low compression set
- High rebound resilience
- No toxic ingredients (cadmium, nitrosamines a.o)
- Excellent mechanical properties
- No corona effects; excellent arc resistance up to 22 kV/mm
- Practically zero water absorption
- Ultimate UV, ageing & weathering resistance
- Colors acc. to RAL
- Low temperature flexibility up to -90°C
- Excellent adhesion to different substrates
- Special properties acc. your requirements and more...

ELECTROCHEM SILICONES Ltd[®] is certified to EN ISO 9001:2008, EN ISO 13485:2012 & DY8d/1348 MoH (93/42/EEC) and is registered in Hellenic Drugs Organization (E.O.F.).

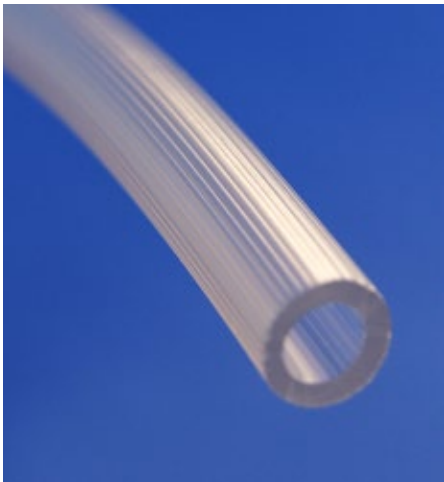


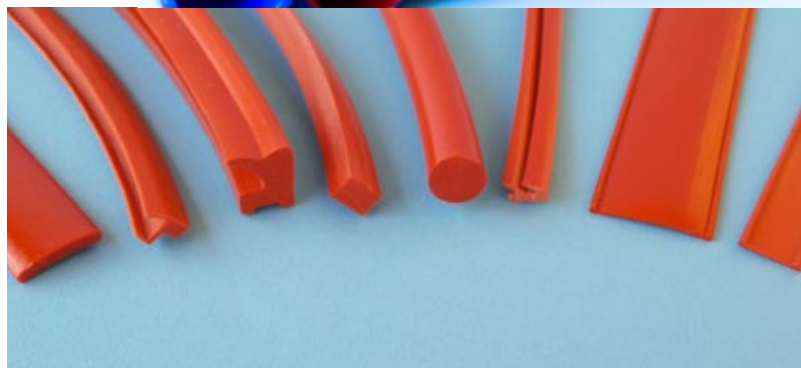
ELECTROCHEM SILICONES SELECTION GUIDE

This Table includes some of the most significant grades of Electrochem's Silicones. For more information, please contact us.

Property	VLD	VLD-Q8	LD	MLD	MD	FG	HT	AF	SPG	TR	XLT
Resistance to superheated steam up 143°C (4 bar)	-	-	-	✓	✓	-	✓	-	-	-	-
Resistance to solvents	-	-	-	✓	✓	-	-	-	-	-	-
Resistance to γ-rays (limited)	◊	◊	✓	✓	✓	◊	✓	✓	✓	◊	✓
Resistance to temperatures up to 180°C (~1.000.000 hrs)	✓	✓	✓	✓	✓	◊	✓	✓	✓	◊	◊
Resistance to temperatures up to 220°C (~10.000 hrs)	-	-	-	✓	✓	-	✓	-	-	-	-
Resistance to temperatures up to 250°C (~1.000 hrs)	-	-	-	✓	-	-	✓	-	-	-	-
Resistance to temperatures up to 280°C (~1.000 hrs)	-	-	-	-	-	-	✓	-	-	-	-
Flame Resistance to 800°C.	-	-	-	-	-	-	-	✓	-	-	-
Resistance to acids / alkalis (pH 0-14)	-	-	-	✓	✓	-	-	-	-	-	-
Resistance to fats	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Resistance to ozone	✓	✓	✓	✓	✓	◊	-	-	-	◊	◊
General purpose	✓	-	✓	✓	✓	✓	-	-	-	✓	-
Transparent elastomer	✓	✓	-	-	-	✓	-	-	-	✓	-
RAL colors	✓	✓	✓	◊	◊	-	-	-	-	-	-
Low Temperature flexibility up to -45°C.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low Temperature flexibility up to -90°C.	-	-	-	-	-	-	-	-	-	-	✓
Rebound Elasticity at 175°C	✓	✓	✓	✓	✓	◊	◊	◊	◊	◊	◊
Rebound Elasticity at 70°C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Contact with skin (hypoallergic)	✓	-	-	-	-	-	-	-	-	-	-
Transporting Roll covering	-	-	✓	✓	✓	-	-	-	-	-	-
Elongation at break (>250%)	✓	-	✓	-	✓	✓	-	-	-	✓	-
Elongation at break (>450%)	✓	-	-	-	-	✓	-	-	-	✓	-
Food Approval (direct contact)	✓	✓	◊	◊	◊	✓	◊	◊	◊	✓	◊
Non-toxic elastomer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low thermal conductivity (W/cm ²)	✓	✓	-	-	-	✓	-	-	-	✓	-
Electrical Insulation (>20 kV / mm)	✓	✓	✓	✓	✓	-	-	-	-	✓	-
Insulation and sealing of furnaces	-	-	✓	✓	-	-	-	-	-	-	-
High hardness (>80 Shore A)	-	✓	-	-	-	-	-	-	-	-	-
Sponge elastomer	-	-	-	-	-	-	-	-	✓	-	-
Injection molding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Compression molding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extrusion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Symbols explanations: ✓ = recommended, ◊ = suitable with certain limitations, - = not recommended







ELECTROCHEM SILICONES PROPERTIES RANGE

This Table includes the most significant grades of Electrochem's Industrial Silicones. For more information, please contact us.

Grade	Hardness (Shore A)	Appearance	Elongation at Break (%)	Tensile Strength (N/mm ²)	Compression Set (% at 170°C)	Arc Resistance (kV/mm)	Volume Resistivity [Ω.cm]	FDA Approval
Elsil® VLD	40-80	Translucent, Colored	250-600	7-10	10-20	20	10 ¹⁶	no
Elsil® VLD/Q8	80	Translucent, Colored	>250	>10	5-10	20	10 ¹⁶	no
Elsil® MLD	60-75	Colored	150-300	5-7	15-30	18	10 ¹⁵	no
Elsil® MD	60-75	Colored	100-150	6-8	15-30	18	10 ¹⁶	no
Elsil® MLD	60-75	Colored	150-300	6-8	15-30	18	10 ¹⁵	no
Elsil® MD	60-75	Colored	100-150	6-8	15-30	18	10 ¹⁶	no
Elsil® FG	50-70	Transparent, White	250-350	6-8	10-20	20	10 ¹⁶	yes
Elsil® AF	65-75	Opaque	120-150	5-7	20-40	15	10 ¹⁵	no
Elsil® HT	65-75	Opaque	120-180	5-7	15-30	18	10 ¹⁵	no
Elsil® HTFR Plus (Flame resistant)	65-75	Black, Colored	300-450	8-10	15-22	n.a.	n.a.	no
Elsil® HTFR (High Heat resistant)	65-75	Black, Colored	350-480	8-10	15-22	n.a.	n.a.	no
Elsil® Perfopure	70-75	Blue	240-320	10-12	14-20	n.a.	n.a.	no
Elsil® Perfoplus	70-75	Red	240-320	10-12	14-20	n.a.	n.a.	no
Elsil® Oropure (Oil resistant)	70-75	Black	210-300	12-14	12-19	n.a.	n.a.	no

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied is made. Buyer assumes all risks of use, storage, handling and disposal of the product in compliance with applicable national and local laws and regulations. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.



Why ELECTROCHEM SILICONES®

Our Company is well known for designing, producing and supplying ultra performance elastomers.

We are focusing our research to successful product development that meet individual customer's requirements.

Strong commitment to innovation and fast forward-thinking shape the core of our business.

We guarantee Top Quality, Reliability, Innovation and Customer Support.

We value what we do and that is why we build strong working relationships with our clients.

Direct service is always present and customer's satisfaction is among our top priorities.

Through vertical and automatic production we achieve cost efficient operational excellence for our customers.

Our vendors and co-workers are carefully selected in order to enhance customer's trust.

ELECTROCHEM® through strategic partnerships and logistic organizations exports technology worldwide.

Quality

All our products are specially designed for our customers' needs.

Our company is well known for it's intensive quality control. By providing technical solutions, by manufacturing innovative products and by being efficient and effective, our customers receive high quality products and services. All products are designed and manufactured according to the European and USA standards and recommendations.

ELECTROCHEM SILICONES® has been approved by Lloyd's Register Quality Assurance to EN ISO 9001:2008 & EN ISO 13485:2012 Standards for the quality management system in designing, produc-

tion and sales of elastomers and specialty polymers for Medical and Industrial use. Additional approval by Lloyd's Register Quality Assurance exists to DY8d/1348 according to the Domestic Drug Association in compliance to the European Directive 93/42/EEC.

ELECTROCHEM SILICONES® is also registered as medical devices manufacturer in Hellenic Research Center for Biomaterials. All of our medical products are accompanied with the CE Mark (with Declaration of Conformity) acc.to 93/42/EEC and all of our food grade products with the CE Mark (with Declaration of Conformity) acc.to 10/2011/EU.





ELECTROCHEM SILICONES Ltd

SILICONE ELASTOMERS – SPECIALTY POLYMERS
EN ISO 9001:2008 - EN ISO 13485:2012 CERTIFIED

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