



electrochem[®]
delibaltas

Ultra Performance Silicones & Polymers

Ultra Performance
Silicones & Polymers
Silicone Profiles for Industry



Welcome to our Company!

ELECTROCHEM - Dr DELIBALTAS Ltd[®] (est. 1972, Thessaloniki, Hellas, Production and Global Sales), 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 40 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 13485:2003, 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:

- **Silicone Tubing for Medical use**
Our Medical Silicone Tubing Portfolio is based on our *Elsil-Pt[®]* (Platinum Cured), *Elsil[®]* (Peroxide Cured), *Elhard[®]* (Peroxide Cured, Transparent Hard) & *Elred[®]* (Peroxide Cured, Red Hard) Silicone Elastomers.
- **Flexible Clear Thermoplastic Tubing for Medical use**
Our Medical Thermoplastic Tubing Portfolio is based on our *Devia[®]*, *Devia/G[®]* (DEHP free) & *Devim[®]* (DEHP plasticized) Thermoplastic Polymers.
- **Yellow[®] (No Latex - No PVC) Tubing for Medical use**
Our Medical Yellow[®] Tubing Portfolio is based on our *Elye[®]* Elastomers.
- **Silicone & Flexible Plastic Tubing for Food & Beverage related industry**
Our Tubing Portfolio for Food & Beverage is based on our *Elsil-FG[®]* and *Elsil-FM[®]* (Platinum Cured) & *Elsil-FG[®]* and *Elsil-FM[®]* (Peroxide Cured) Silicone Elastomers, on our *Devia 6F[®]* & *Devia 7F[®]* (DEHP free) Plastics and on our *Delan-AS[®]* & *Delan-AF* flexible TPV/TPE's.
- **Extruded Silicone Elastomer Profiles for all kind of applications**
Our Silicone Profiles Portfolio is based on over 1500 chemical formulations.

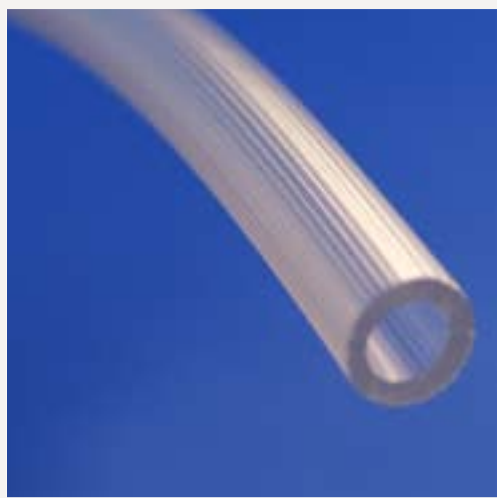
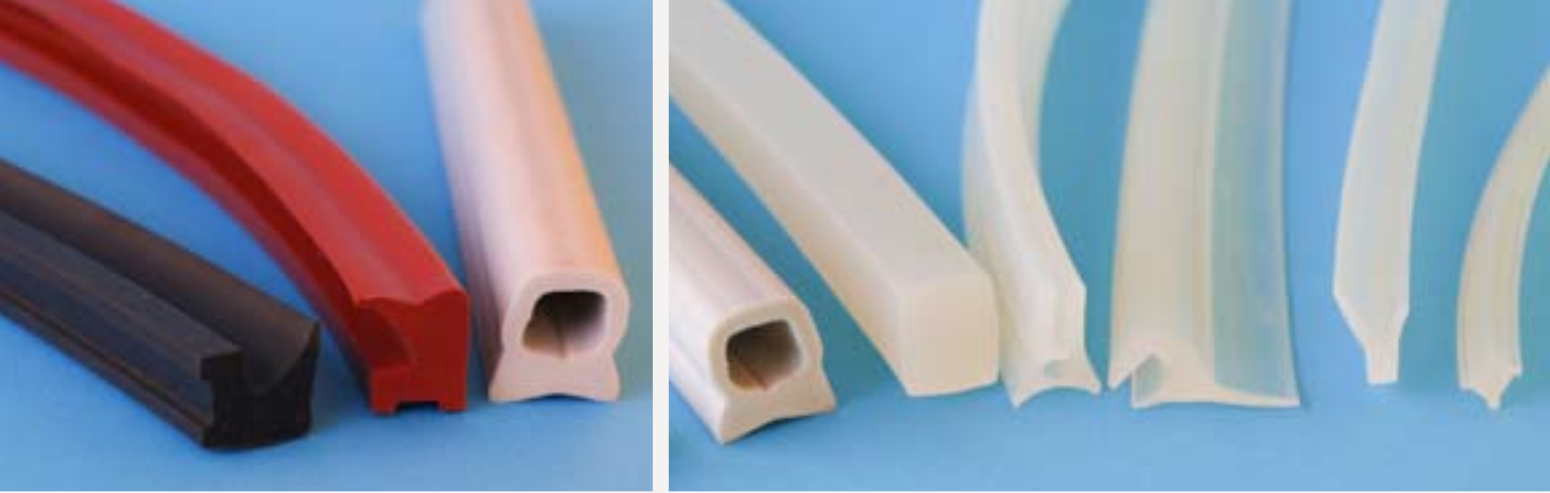
ELECTROCHEM[®] is certified to BS EN ISO 9001:2008, BS EN ISO 13485:2003 & DY8d/1348 MoH (93/42/EEC) and is registered in Hellenic Drugs Organization (E.O.F.).

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[®]'s Silicone Profiles: *over 40 years of scientific experience!*

Through decades of pioneering in silicones with over than 1500 chemical formulations, we constantly expand our proposals on Silicone Elastomers.

Long service life at high temperatures, Excellent media resistance, Perfect sealing, Low compression set, Non toxic, Excellent mechanical properties, No corona effects, Practically zero water absorbtion, Ultimate UV, ageing & weathering resistance, Easy colouring, Low temperature flexibility, Excellent adhesion to different substrates and more...

No matter if your need is related to Medicine, Food and Beverage Industry or other, we are highly pleased to design your profile or special part in it's best form & quality for maximum functionality & service life...

**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

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[®]

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 its 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[®] has been approved by Lloyd's Register Quality Assurance to BS EN ISO 9001:2008 & BS EN ISO 13485:2003 Standards for the quality management system in designing, production 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[®] 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.





Dr DELIBALTAS Ltd

SILICONE ELASTOMERS – SPECIALTY POLYMERS
EN ISO 9001:2008 - EN ISO 13485:2003 CERTIFIED

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