

Elan-tron[®]

Silicone Materials for Electrical Applications

New technologies and the demand for improved productivity levels have a direct impact on today's markets and materials used. The requirements for materials to operate within higher temperature ranges or for softer materials with improved chemical and UV resistance are steadily increasing.

We know exactly what our customers need as we are always close to the market. Our aim is always to provide the best solution for our customers. Based on our deep chemical and technological understanding we developed a range of silicone products which fully meet these requirements.

We have expanded our existing portfolio of Elan-tron® potting materials with the inclusion of a dedicated range of silicone compounds and gels as well as sealants and adhesives. A tailored design following precisely the demands of the customer is the major principle in the development of these products.

Our silicone portfolio includes 2-component addition cure potting compounds and gels, 2-component condensation cure systems as well as 1-component materials (oxime and alkoxy). Where an improved adhesion is required our R&D specialists offer full support to provide an optimum and individual solution with a primer or with plasma treatment.

Our product range offers materials to cover a wide spectrum of application areas in the electrical industry, e.g. lifting magnets, power transformers, total encapsulation, encapsulation of end windings, potting insulators, cable joints, sensors and heating elements.

Elan-tron®

Silicone Materials for Electrical Applications



Total Encapsulation



Potting of Lifting Magnets



Potting of Sensors



Potting of Cable Joints

Main characteristics of silicones:



High Stability

Resistance against: UV light, ozone, temperature extremes, oxidation, weathering, aging



Excellent Thermal Properties

Wide range of operating temperatures from -55 °C up to 300 °C



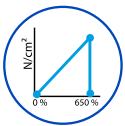
Excellent Electrical Properties

Superior dielectric properties very stable in the range of operating temperatures



High Chemical Resistance

Resistance to chemical aggression



High Elongation

Wide variety of hardness



Flame Retardant

Difficult to burn: for most products UL 94 V0 or V1



No Toxic Fumes

In case of fire fumes have a very low concentration of dangerous products



Safe Handling

The majority of the products are non hazardous

Elan-tron® SA 60 Series – Alkoxy 1 Part Silicones Adhesives

Elan-tron® SA 60 Series is a 1 part condensation cure family (alkoxy) specially designed for corrosion sensitive devices. Products have very good adhesion to many substrates as well as good dielectric properties and temperature resistance (from - 55 °C up to 200 °C). They are designed to provide flexible bonding in electrical assembly, sealing modules and housings, assembly of components, sealing in and around wired and electrical leads.

Alkoxy Cure 1-Part	Elongation at break [%]	Tensile Strength [Mpa]	Colour	Viscosity [mPas]	Tack Free Time [min]	Hardness [Shore]	Thermal Conductivity [W/mK]
Elan-tron® SA 60V1-36	140	1,52	Translucent	1.200	10	A 36	0,20
Elan-tron® SA 60L1-30	240	1,05	Translucent	11.500	11	A 30	0,20
Elan-tron® SA 60P1-15	540	2,70	Translucent	Paste	15	A 15	0,20
Elan-tron® SA 60P1-30	545	2,43	Translucent	Paste	10	A 30	0,20
Elan-tron® SA 60P1-34	580	2,00	White	Paste	15	A 34	0,50
Elan-tron® SA 60P9-37	450	2,40	Black	Paste	15	A 37	0,50
Elan-tron® SA 60P9-60	200	2,35	Black	Paste	3	A 60	0,60

Elan-tron® SA 61 Series – Oxime 1 Part Silicones Adhesives

Elan-tron® SA 61 Series is a 1 part condensation cure family (oxime). Products have very good dielectric properties and excellent adhesion to most common substrates used in the electrical and mechanical industry. The temperature resistance is in the range of -50 °C up to 240 °C. The products are an ideal option for many electrical and lighting applications where high performance is a must.

Oxime Cure 1-Part	Elongation at break [%]	Tensile Strength [Mpa]	Colour	Viscosity [mPas]	Tack Free Time [min]	Hardness [Shore]	Thermal Conductivity [W/mK]
Elan-tron® SA 61L1-20	400	2,00	Translucent	26.000	14	A 20	0,20
Elan-tron® SA 61P1-37	300	2,15	Translucent	Paste	5	A 37	0,20
Elan-tron® SA 61P9-55	250	2,00	Black	Paste	3	A 55	0,30

Elan-tron® AP Series – Primers

Elan-tron® AP Series are specially formulated primers designed to enhance adhesion of silicone rubbers to different substrates including most metals, rubber, polyester, nylon and other plastics.

Primer	Colour	Viscosity [mPas]	Tack Free Time [min]
Elan-tron® AP 64V8-02	clear/ yellow	<20	20
Elan-tron® AP 64V8-03	clear/ yellow	<20	30

Elan-tron® SK 65 Series – 2 Part Addition Cure Silicones

Elan-tron® SK 65 is a 2 part addition cure family. For easy application all products were designed with very low viscosity. They cure at room temperature but it is possible to accelerate the speed by heat. Thanks to their elastic properties and long term thermal resistance (-40 °C up to 200 °C) products are successfully used for protection and encapsulation of electrical sensitive devices and connections, LED's and displays, outdoor or harsh environment lighting housings, power modules, high voltage electrical components as well as high load resistors, etc. Products are flame retardant accordingly to UL 94.

Addition Cure 2-Part rubber		Colour	Mixed Viscosity [mPas]	Process Time [min]	Hardness [Shore]	Thermal Conductivity [W/mK]
Elan-tron® SK 65V1-35	Elan-tron® SH 69V2-35	White-Beige	990	180	A 35	0,30
Elan-tron® SK 65V1-50	Elan-tron® SH 69V1-50	White-White	3.000	60	A 50	0,60
Elan-tron® SK 65V2-35	Elan-tron® SH 69V5-35	Beige-Blue	1.050	75	A 35	0,38
Elan-tron® SK 65V2-45	Elan-tron® SH 69V2-45	Beige-Beige	3.200	60	A 40	0,54
Elan-tron® SK 65V2-55	Elan-tron® SH 69V1-55	Beige-Clear	3.500	35	A 55	0,30
Elan-tron® SK 65V2-65	Elan-tron® SH 69V2-65	Beige-Beige	3.500	60	A 65	0,45
Elan-tron® SK 65V2-70	Elan-tron® SH 69V1-70	Beige-Clear	4.500	30	A 70	0,51

Elan-tron® SG 65 Series – 2 Part Addition Cure Silicones Gels

Elan-tron® SG 65 Series is a 2 part addition cure family of very soft materials. They cure at room temperature but it is possible to accelerate the speed by heat. Thanks to their elastic properties and thermal resistance (from -45 °C up to 200 °C) they are successfully used for potting of cable joints and for protection of electrical components against mechanical stress and vibration.

Addition Cure 2-Part gel		Colour	Mixed Viscosity [mPas]	Process Time [min]	Penetration [mm*10]	Thermal Conductivity [W/mK]
Elan-tron® SG 65V1-15	Elan-tron® SG 69V1-15	Clear-Clear	3.000	60	pen 15	0,20
Elan-tron® SG 65V1-42	Elan-tron® SG 69V5-42	Clear-Blue	1.000	8	pen 40	0,20
Elan-tron® SG 65V1-60	Elan-tron® SG 69V1-60	Clear-Clear	350	120	pen 60	0,20
Elan-tron® SG 65V1-75	Elan-tron® SG 69V1-75	Clear-Clear	925	45	pen 75	0,20
Elan-tron® SG 65L2-30	Elan-tron® SG 69L5-30	Beige-Blue	10.500	120	pen 30	0,90
Elan-tron® SG 65L1-110	Elan-tron® SG 69L1-110	Clear-Clear	9.750	2	pen 110	0,20

Elan-tron® SK 66 Series – 2 Part Condensation Cure Silicones

Elan-tron® SK 66 Series is a 2 part condensation cure family. They cure room temperature. Thanks to their elastic properties and long-term thermal resistance (from -40 °C up to 180 °C) products are successfully used for casting coil heads and other components subject to thermal shock.

Condensation Cure 2-Part		Colour	Mixed Viscosity [mPas]	Process Time [min]	Hardness [Shore]	Thermal Conductivity [W/mK]
Elan-tron® SK 66V2-50	Elan-tron® SH 69V5-50	Beige-Blue	2.600	30	A 50	0,40
Elan-tron® SK 66V2-75	Elan-tron® SH 69V5-75	Beige-Blue	7.500	20	A 75	0,42

Elan-tron®

Silicone Materials for Electrical Applications

ELANTAS Europe with production sites in Germany and Italy is part of the division ELANTAS Electrical Insulation of the ALTANA group. As a leading manufacturer of insulating and protective materials for the electrical and electronics industry our portfolio includes wire enamels, impregnating resins and varnishes, casting and potting resins, electronic coatings, adhesives and flexible electrical insulation materials. In addition, we supply materials for other application areas such as special coatings, printed electronic products as well as tooling and composite materials.

ELANTAS EUROPE S.R.L.

Strada Antolini, 1
43044 Collecchio, Italy
Tel. +39 0521 304777

ELANTAS EUROPE S.R.L.

Via San Martino,6
15028 Quattordio, Italy
Tel. +39 0131 773870

ELANTAS EUROPE GMBH

Grossmannstr. 105
20539 Hamburg, Germany
Tel. +49 40 789460

ELANTAS EUROPE GMBH

Manchester Sales Office
Keate House, 1 Scholar Green Road
Cobra Court
Manchester M32 0TR, United Kingdom
Tel. +44 161 8641689

www.elantas.com/europe
castingpotting.elantas.europe@altana.com