



# Elan-tech®

Silicones for Technical 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 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-tech® potting materials with the inclusion of a dedicated range of silicone compounds 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-part addition cure potting compounds, 2-part condensation cure systems as well as 1-part adhesives. For the 1-part adhesives you can choose between alkoxy, acetoxy and oxime curing systems. 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 industry, e.g. mould making, sealing, architectural, prototyping, arts and industrial.

## Elan-tech®

### Silicones for Technical Applications



Sealing



Mould Making



Arts



Industrial

## Main characteristics of silicones:



### High Stability

Resistance against: UV light, ozone, extreme temperatures, oxidation, weathering, aging



### Excellent Thermal Properties

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



### Excellent Dielectrical 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

Suitable according to railway standard EN 45545-2

Fulfill standard according to UL 94



### 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



### FDA Approved

Fulfill standard according to FDA 21 CFR 177.2600

**Elan-tech® SA 80 Series** is a 1K condensation cure family, alkoxy, with low modulus and no corrosion. The products stand out due to good primerless adhesion to many substrates such as glass, metal (e.g. iron, steel, aluminium) and most common plastics (e.g. PVC, polyacrylate, polycarbonate). The temperature resistance is in the range from -55 °C up to 200 °C. The products are designed to provide flexible bonding in general applications such as oil pan, gear axle, PTO covers, flange sealing for manual transmission, etc., where a neutral cure and fast achievement of mechanical properties is required. The products are an ideal option for many applications, where high performance is a must.

Alkoxy Cure 1-Part	Elongation at break [%]	Tensile Strength [Mpa]	Colour	Viscosity [mPas]	Tack Free Time [min]	Shore-hardness
Elan-tech® SA 80P1-34	580	2,00	White	Paste	15	A 34
Elan-tech® SA 80P9-37	450	2,40	Black	Paste	15	A 37
Elan-tech® SA 80P1-15	540	2,70	Translucent	Paste	15	A 15

**Elan-tech® SA 81 Series** is a 1K condensation, oxime cure family. The products stand for very good bonding properties and have excellent adhesion to most common substrates in the industry sector. The temperature resistance is in the range from -50 °C up to 240 °C.

Oxime Cure 1-Part	Elongation at break [%]	Tensile Strength [Mpa]	Colour	Viscosity [mPas]	Tack Free Time [min]	Shore-hardness
Elan-tech® SA 81L1-20	400	2,00	Translucent	26.000	14	A 20
Elan-tech® SA 81P1-37	300	2,15	Translucent	Paste	5	A 37
Elan-tech® SA 81P9-55	250	2,00	Black	Paste	3	A 55

**Elan-tech® SA 82 Series** is a 1K condensation, acetoxy cure family. The products stand for excellent adhesion to glass, aluminium and some plastic materials, such as ABS, nylon and other common substrates used in various industries. The temperature resistance is in the range from -50 °C up to 300 °C. The products can be used in a wide range of assembly and protection of mechanical devices, sealing and bonding of metal and plastic substrates, sealing of truck and trailer cabs, protection of instruments, sealing tubes, sinks and pipes, made of formed-in-place gaskets, sealing of heaters, flanged pipe joints, industrial ovens, etc.

Acetoxy Cure 1-Part	Elongation at break [%]	Tensile Strength [Mpa]	Colour	Viscosity [mPas]	Tack Free Time [min]	Shore-hardness	FDA
Elan-tech® SA 82H1-38	180	2,90	White	200.000	10	38 – 52	yes
Elan-tech® SA 82P1-30	440	1,70	Translucent	Paste	5	25 – 36	n.a.
Elan-tech® SA 82P9-32	290	2,30	Black	Paste	4	30 – 45	n.a.
Elan-tech® SA 82P3-34	410	2,50	Red	Paste	4	30 – 45	yes

**Elan-tech® SA 85 Series** is a 2K addition cure family. The curing is possible at room temperature as well as accelerated with heat. Low shrinkage. Thanks to elastic properties and long-term performance the products are successfully used for figurine and giftware, architectural applications. Commonly used in composite moulding, picture frames, furniture parts, candles & low melting alloys as well as plaster ware, such as ceilings & covings, where a high tear resistance is required.

Addition Cure 2-Part rubber		Elongation at break [%]	Colour	Mixed Viscosity [mPas]	Process Time @ RT [min]	Demould Time @ RT [h]	Shore-hardness
Elan-tech® SK 85V1-20	Elan-tech® SH 89V2-20	480	Yellow	4.500	45	4	A 20
Elan-tech® SK 85V1-30	Elan-tech® SH 89V6-30	480	Green	5.500	45	4	A 30
Elan-tech® SK 85V1-40	Elan-tech® SH 89V5-40	280	Blue	5.250	45	4	A 40
Elan-tech® SK 85L7-45	Elan-tech® SH 89L1-45	340	Dark grey	25.000	60	8-12	A 45
Elan-tech® SK 85H2-60	Elan-tech® SH 89V5-60	190	Blue	70.000	60	8-12	A 60

**Elan-tech® SA 86 Series** is a 2K condensation cure family with very high mechanical properties. The products stand for elastic materials curing at room temperature. The products are successfully used for figurine and giftware, architectural applications such as fireplace elements & concrete, picture frames, plaster ware, furniture parts, candles, artistic foundries as well as mould making of intricate patterns.

Condensation Cure 2-Part		Elongation at break [%]	Colour	Mixed Viscosity [mPas]	Process Time [min]	Demould Time @ RT [h]	Shore-hardness
Elan-tech® SK 86V1-16	Elan-tech® SH 89V1-16	250	Beige	8.500	15	< 2	A 16
Elan-tech® SK 86L1-10	Elan-tech® SH 89V1	580	Transparent	23.000	45	12	A 10
Elan-tech® SK 86L1-20	Elan-tech® SH 89V1	500	Transparent	20.600	45	12	A 20
Elan-tech® SK 86L1-27	Elan-tech® SH 89V1	410	Transparent	31.500	45	12	A 27
Elan-tech® SK 86P1-25	Elan-tech® SH 89P2-25	400	Yellow	Paste	15	1	A 25

Elan-tech® TA 84V1-52 is a thix agent, for use with high tear 2K silicone mould making rubbers. It has been designed to produce a paste consistency within seconds after addition to the catalysed liquid rubber.

Condensation Cure 2-Part		Colour	Viscosity [mPas]
Elan-tech® TA 84V1-52	Thixotropic Agent	Yellow	600

**Elan-tech® AP Series** has been specially formulated 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-tech® AP 84V2-02	Clear	< 20	20
Elan-tech® AP 84V8-03	Clear/Orange	< 20	30

# Elan-tech®

## Silicones for Technical Applications

ELANTAS Europe is part of the division ELANTAS of the ALTANA group and is a leading manufacturer of insulating materials and specialty chemicals. As specialist in formulating epoxy, polyurethane and silicone resins, ELANTAS Europe has a deep knowledge in the development and the application of composite and tooling materials. We combine high quality products, customized solutions and comprehensive services to offer our customers a broad product portfolio perfectly meeting their individual requirements.

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