

Special Coatings

Hightech Polymers for Advanced Technologies

Our aim is to always provide the best solution for our customers.

Based on our deep chemical and technical understanding of technologies, ELANTAS Europe developed a series of resins for special applications in the industrial field. Our products are used as binders and crosslinkers for non-stick coating, protective coating, anti-friction coating, industrial coating and can coating applications. With our special coatings we provide specialized technological solutions for high performing, eco-sustainable or green coating applications.

Our product portfolio includes NMP and NEP free polyamide-imides as well as NMP and NEP containing products. In addition, a range of silicone and acrylic resins harmoniously completes our product range. Our extensive assortment offers a wide spectrum of possibilities focused on the industrial field. This enables us to exactly meet the demanding customer requirements with innovative and individual product developments.

Due to their profiled properties our materials guarantee high adhesion and slip, along with excellent thermal and mechanical resistance.

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Industrial Coatings



Non-stick Coatings



Can Coatings



Anti-friction Coatings



Protective Coatings

Elan-tech® PAI NMP/NEP Series

The Elan-tech® PAI NMP/NEP are polymers used for the production of varnishes and special coatings. This materials have excellent thermal properties intended for the electrical and industrial sector. The NMP/NEP based PAI are available in different versions with different molecular weights and are suggested for the production of thermostable and thermosetting varnishes.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|-------------------|--------------------------------------------------|----------------------------|-----------------------------|--------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------|
| Elan-tech® 595 P | Polyamide-imide in NMP | 35.0–37.0% 1g/1h/180 °C | 1500–2500 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |
| Elan-tech® 595 PH | Polyamide-imide in NMP | 39.0–41.0% 1g/1h/180 °C | 3500–4000 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |
| Elan-tech® 602 P | Polyamide-imide in NMP with low molecular weight | 42.0–44.0% 1g/1h/180 °C | 500–1000 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |
| Elan-tech® 595 K | Polyamide-imide in NEP | 35.0–37.0% 1g/1h/180 °C | 2800–3600 mPas at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |

Elan-tech® PAI NMP/NEP Free Series

The Elan-tech® PAI NMP and NEP free series has been studied to develop green and eco-sustainable products. They can be used as binder or in combination with crosslinker in the sector of non-stick coatings or as anti-friction for protective coatings in the automotive field and in the industrial coating.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|------------------|----------------------------------------|----------------------------|------------------------------|--------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------|
| Elan-tech® 603 G | Polyamide-imide NMP/NEP free | 35.0–37.0% 1g/1h/180 °C | 5000–10000 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |

Elan-bind Series – Waterbased PAI NMP/NEP Free

The water-based Elan-bind PAI NMP and NEP free has been studied to develop green and eco-sustainable products. The resins included in this series are high performing polymers that are thermally stable and chemically resistant. The cured resin is capable to operate at temperatures higher than 240 °C for extended time periods. The resulting coatings can be used in the fields of non-stick cookware, wire insulation, printed circuit, can coating, aerospace applications and comply with FDA requirements.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|-------------------|------------------------------------------------------------------------|---------------------------|---------------------------|--------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------|
| Elan-bind 1015 | Polyamide-imide Hydrolyzed version water/NMP | 13–16% 2,5g/20'/250 °C | 250–500 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |
| Elan-bind 1015 NF | Polyamide-imide Hydrolyzed version water/ NMP/NEP free | 13–16% 2,5g/20'/250 °C | 250–500 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |

Elan-tech® FE Series

The Elan-tech® FE is a special etherified thermosetting resin, light color. It is a crosslinker with high solid content, improves the chemical and mechanical resistance in hydroxyl systems such as epoxies, polyesters and alkyd systems. The curing is very fast, but is possible to increase the reactivity using in addition phosphoric acid (0,5-1 %) on total solid resin.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|--------------------------|---------------------------|------------------------|----------------------------------------------------------------------------------------------|--------------------------------------|-----------------------|---------------------------------------------------------------------------|
| Elan-tech® FE 1748 AK | Etherified Phenolic resin | 78–82% 1g/1h/135 °C | 100–200 mPa.s at 23 °C at 60 % of solid content after dilution with n-butanol | Can Coatings, Industrial Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |

Elan-ext Series PS

The Elan-ext PS is a range of silicone resins with features varying with the different application typologies. The crosslinking silicone polymers have stiff or elastic films. They are capable of protecting and insulating dielectrically up to very high temperatures and are also used as additives in the manufacture of high temperature varnishes as well as in the food industry. The recommended curing time is 8 min x 280 °C.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|----------------|--------------------|------------------------|----------------------------|-------------------------------------|-----------------------|---------------------------------------------------------------------------|
| Elan-ext PS | Silicone Polyester | 59–61% 1g/1h/180 °C | 800–1200 mPa.s at 23 °C | Industrial Coatings Can Coatings | Binder Crosslinker | High Adhesion High Thermal Resistance High Mechanical Resistance |

Elan-ext Series AC

The Elan-ext AC is a range of acrylic resins with features varying with the different application typologies. The resin Elan-ext AC 300 is a special polyol-acrylic resin. The polymer has high functionality and is designed to reticulate in forced ventilation ovens with aliphatic poly-isocyanates. It is particularly recommended for protective coatings in industrial applications where high performances are required.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|----------------|-----------------|-------------------------|-----------------------------|-------------------------------------|-------------|---------------|
| Elan-ext AC | Acrylic resin | 69–71% 1gr/1h/180 °C | 5000–7000 mPa.s at 23 °C | Industrial Coatings Can Coatings | Single coat | High Adhesion |

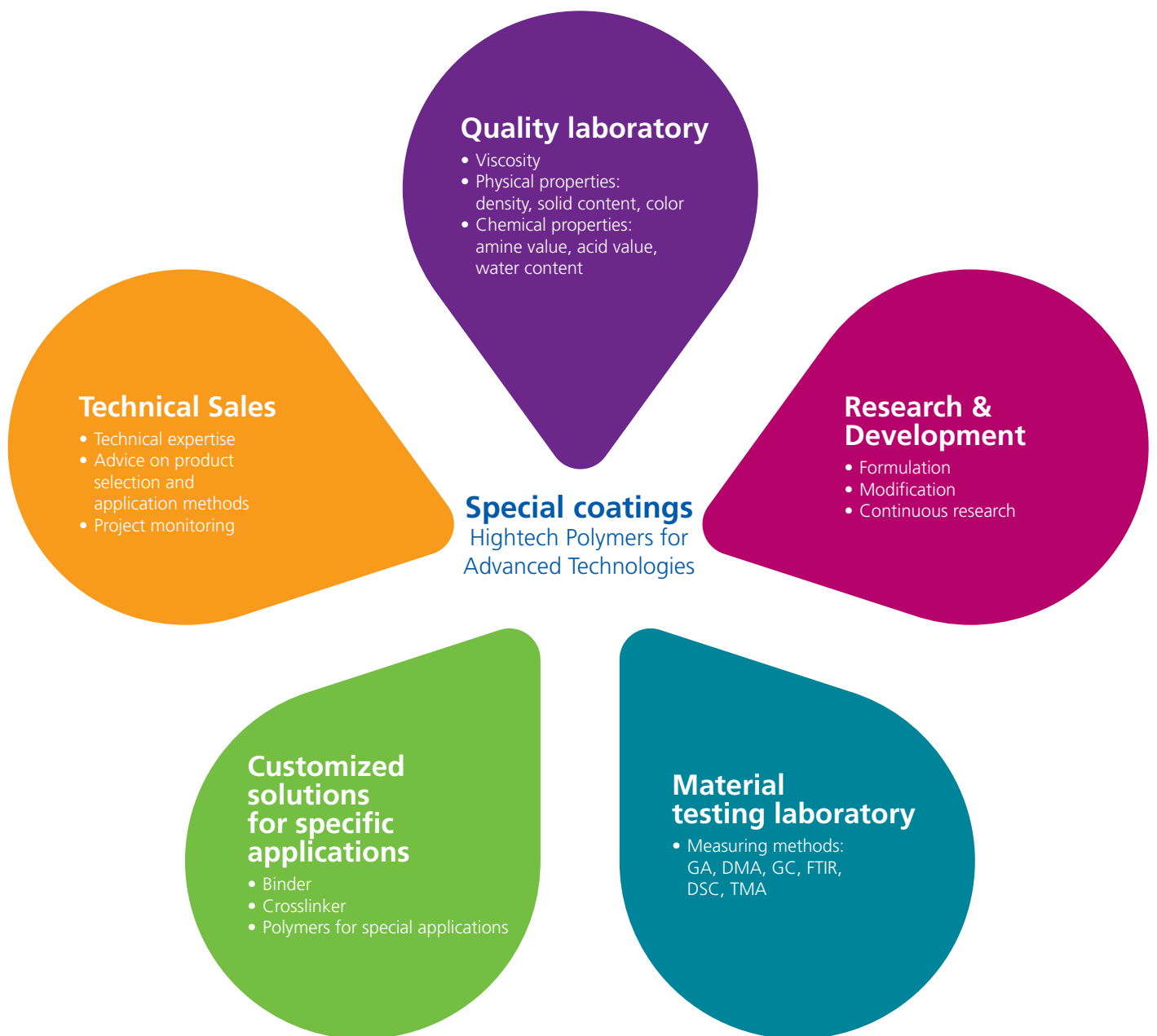
Elan-coat Series

Elan-coat resins are used in the formulation of products for internal and external varnishing of metal packaging, cans for beverage, food boxes, capsules and closures. These special self-crosslinking modified PAI resins are used for direct application on to metal and can also be applied as lacquers for food contact. Among the advantages of this technology are the internal performance levels similar or superior to those of conventional products containing BPA and the opportunity to meet eventual future legal requirements such as, for example, the limit of formaldehyde. The recommended curing time is 15 min x 250 °C.

| Products Brand | Chemical Family | Solid content | Viscosity | Market | Uses | Benefits |
|----------------|---------------------------------|-------------------------|-----------------------------|--------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------|
| Elan-coat 700 | Polyester imide modify imide | 37–39% 1gr/1h/180 °C | 3000–4000 mPa.s at 23 °C | Non-stick coatings Protective coatings Anti-friction Coatings Industrial Coatings | Single coat | High Adhesion High Thermal Resistance High Mechanical Resistance |

ELANTAS Europe aims for the highest quality of its products.

From formulation to end-use in the customer's process, extensive test and measuring methods are applied. In this way, constant material properties can be guaranteed.



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ELANTAS Europe belongs to the division Electrical Insulation of the ALTANA Group and is a leading manufacturer of insulating and protective materials for the electrical and electronics industry. Our product portfolio includes wire enamels, impregnating resins and varnishes, casting and potting resins, electronic coatings, adhesives and flexible electrical insulation materials.

Our high understanding of chemistry and deep knowledge of product properties has widened our markets to other application areas such as special coatings, printed electronic products as well as tooling and composite materials.

With the new portfolio of special coatings, ELANTAS Europe has expanded the range of products which are used as binders and crosslinkers especially in the field of industrial coatings.

We combine high quality products, customized solutions and comprehensive services to offer our customers a broad product portfolio meeting their individual requirements.

ELANTAS EUROPE S.R.L.

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