

# One partner. Many experts.

PRODUCT REFERENCE GUIDE



# Coating Innovations

Evonik offers Intelligent and Innovative Solutions for the Paints, Coatings, Printing Inks, and Adhesives Industries.

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## Coating Additives

The Coating Additives Business Line supplies its customers with optimal solutions in the paints, coatings and printing ink sectors and supports them with the production of resource-efficient coatings. The Business Line bundles a diverse product portfolio for the coatings industry, like additives, co-binders, matting agents, fumed silica, specialty resins and nanoresins.

Product name	Additives
<b>AEROSIL®</b>	Solvent and waterborne coatings – rheology, suspension of pigments, free flow, reinforcement, improved corrosion resistance
<b>AEROXIDE®</b>	Powder coatings – improved free flow
<b>AERODISP®</b>	Waterborne coatings – suspension of pigments, improved film formation, reinforcement
<b>ACEMATT®</b>	Solvent, waterborne, UV coatings – gloss reduction
<b>AIRASE®</b>	Defoamers and deaerators for waterborne applications, each formulated to provide optimum defoaming and compatibility
<b>CARBOWET®</b>	Effective wetting and surface tension reduction additives with varying degrees of emulsification and stabilization
<b>DYNOL™</b>	Superwetting surfactants for the most difficult to wet surfaces
<b>SURFYNOL®</b>	Range of multi-functional surfactants and defoamers including low foam dynamic wetting agents, unique molecular defoamers, and specialty surfactants
<b>TEGO® Airex</b>	Prevents air inclusions and pinholes in waterborne, solventborne, and radiation-curing coatings
<b>TEGO® Dispers</b>	Promotes pigment wetting and stabilization and prevents floating, flooding and settling of pigments
<b>TEGO® Foamex</b>	Prevents foam formation in waterborne coatings and printing inks
<b>TEGO® Glide</b> <b>TEGO® Flow</b>	Improves flow/leveling, slip and scratch resistance. Prevents cratering, pigment flooding and floatation
<b>TEGO® Phobe</b>	Used to make hydrophobic waterborne exterior paints. Special products for other systems are available

## Coating Additives – continued

Product name	Additives – continued
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<b>TEGO® Rad</b>	Crosslinkable, acrylate additives which improve slip, substrate wetting, scratch resistance and leveling in energy-curable formulations
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<b>TEGO® Wet TEGO® Twin</b>	Substrate wetting and anti-cratering additives
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<b>TEGO® Protect</b>	Anti-graffiti and easy-to-clean additives for polyurethane coatings
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<b>TEGO® Humectant</b>	Humectant for colorants, minimized influence on coatings properties
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<b>SPHERILEX® SIPERNAT® ZEOLEX®</b>	Specialty fillers for replacement of TiO <sub>2</sub> and improvement of film properties like hiding power, touch-up & burnish resistance in water based formulations
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<b>ZETASPERSE®</b>	Dispersants providing effective stabilization of pigments and particles in aqueous systems
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Product name	Specialty binders
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<b>SILIKOPHEN®</b>	Methyl and phenyl-methyl silicone resins which provide corrosion protection up to 650 °C
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<b>SILIKOPON®</b>	Silicone-epoxy hybrid resins that are the basis for isocyanate-free, air-drying, 2K anti-corrosion top coats
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<b>SILIKOFTAL®</b>	Silicone-polyester resins which provide heat and weathering resistance, low surface tension, low thermoplasticity, high flexibility, and good pigmentability
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<b>SILIKOTOP®</b>	Low-viscosity, isocyanate-crosslinking silicone polyester resins used for corrosion protection in top coat applications
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<b>SILIKOPUR®</b>	Waterborne, silicone-modified 1K polyurethane dispersion. Flexible coating resin for leather, wood, plastic, rubber, and metal
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<b>TEGOMER®</b>	Building blocks
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**Product name      Nanoresins**

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**ALBIDUR®**

Silicone elastomer particles to modify coatings to improve fracture toughness and release properties without affecting the glass transition temperature of the cured formula

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**NANOCRYL®  
NANOPOL®**

Liquid silica nanocomposites for surface hardness and scratch/abrasion resistance of coatings without impairing transparency or gloss

**Product name      Co-binders**

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**TEGO®  
AddBond**

Widely compatible polyester co-binders which improve the adhesion of coatings and printing inks

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**TEGO®  
VariPlus**

Widely compatible co-binders that increase solids content and accelerate touch drying while improving hardness, gloss, and film build

**Contact**

**Coating Additives**

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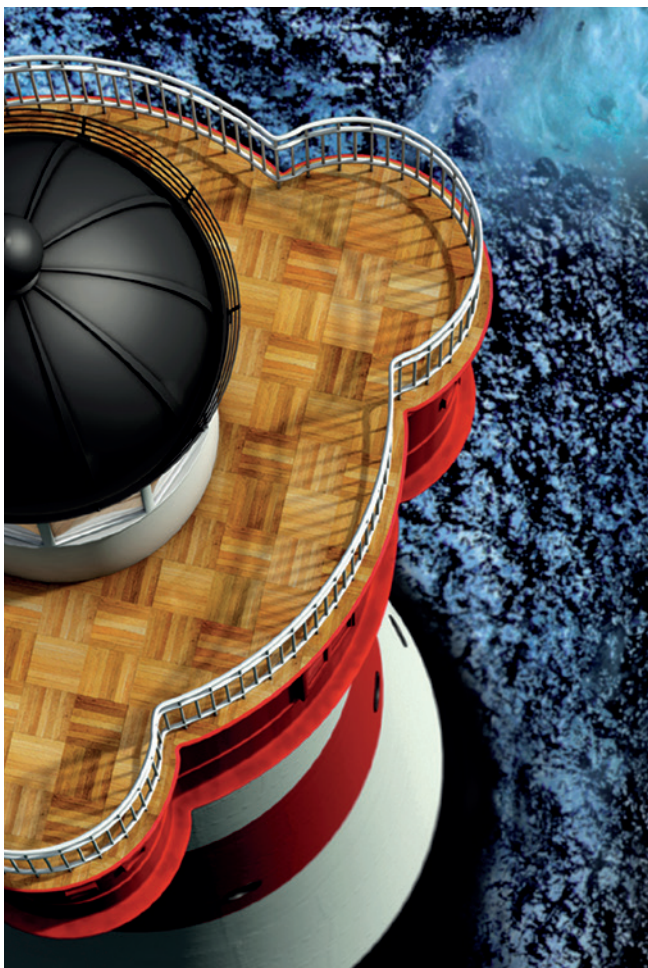
Please scan this QR Code to find a suitable contact partner at Evonik or visit **www.coating-additives.com**



## Crosslinkers

Crosslinkers offers a wide variety of isocyanates and diamines to the coatings market to make highly functional, chemically resistant, non-yellowing urethane resins and epoxy hardeners. We also offer new, non-isocyanate based technologies as well as new innovations for the powder coatings industry.

Product name	Applications
<b>VESTANAT® IPDI</b> <b>VESTANAT® H<sub>12</sub>MDI</b> <b>VESTANAT® TMDI</b>	Aliphatic diisocyanates for PUDs, UV oligomers, prepolymers, and elastomers
<b>VESTANAT® T 1890</b>	2K PUR coatings for automotive OEM; refinish, aircraft, plastic coatings etc.
<b>VESTANAT® B series</b>	Blocked polyisocyanates for thermosetting 1K PUR; excellent light stability and weather resistance
<b>VESTANAT® B 1186A</b>	Blocked polyisocyanate for thermosetting 1K PUR BPA free interior can coatings; FCN status for interior can coatings
<b>VESTANAT® EP-DS series</b>	Cosolvent-free aqueous dispersions of a blocked crosslinker for light-stable PUR systems
<b>VESTANAT® EP-M series</b> <b>VESTANAT® EP-MF series</b>	Non-isocyanate, high scratch and chemical resistant 1K and 2K coatings systems, suitable for various substrates
<b>VESTAGON® B series</b> <b>VESTAGON® BF series</b>	PUR powder coating crosslinkers for exterior weatherable, anti-graffiti, lawn & garden, heat transfer, etc.
<b>Oxyester T series</b>	Flexible polyesters for 1K and 2K PUR systems; helps reduce viscosity and VOCs in refinish systems
<b>VESTAMIN® A139</b>	Blocked diamine; accelerator for moisture cure PUR systems
<b>VESTAMIN® IPD</b> <b>VESTAMIN® TMD</b> <b>VESTAMIN® PACM</b>	Amines to formulate epoxy hardeners for ambient and heat cure; chain extender for PUR systems
<b>VESTASOL®</b>	Solvents for can and coil coatings, as well as ink applications



## Contact

### Crosslinkers

[www.evonik.com/crosslinkers](http://www.evonik.com/crosslinkers)

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## Crosslinkers – *continued*

As the world leader in high-quality, performance-oriented epoxy curing agents and modifiers, Evonik brings formulating solutions and products with unique performance advantages to epoxy systems. Formulators look to our expansive line of products across a breadth of chemistries, along with our technical support to achieve success with their most challenging projects.

### **Ancamide® Curing Agents**

#### **Amidoamine**

Low viscosity; very good adhesion, particularly to concrete; good cure in humid conditions; modified amidoamines offer faster cure speed and improved chemical resistance

- civil engineering (flooring, concrete bonding and crack injection, tile grouts)
- high-solids coatings

#### **Polyamide**

Excellent corrosion resistance; good flexibility and toughness with high viscosity; long pot life and good water resistance

- solventborne, two-pack (2K) primers and finishes (marine coatings, pipe and tank coatings)

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### **Ancamine® Curing Agents**

#### **Aliphatic**

High reactivity; fast cure at ambient or low temperatures; relatively moisture insensitive; good chemical/solvent resistance

- civil engineering (patch repair systems and flooring)
- high-solids coatings

#### **Cycloaliphatic**

Very good chemical resistance; cure at low temperatures under damp conditions; resistant to amine blush and water spotting; excellent color/color stability

- solvent free and high-solids coatings
- flooring
- chemically-resistant linings and secondary containment

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### **Ancarez® Waterborne Epoxy Resins**

Specialty resins designed to deliver corrosion resistance when used with Evonik's waterborne curing agents (below)

- industrial coatings
- flooring

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### **Anquawhite®, Anquamine®, Epilink® Low/No VOC Curing Agents**

Waterborne curing agents that provide low VOC and low color, and are easy to apply and clean. Products with different cure speeds for use with various types of epoxy resins

- protective and industrial concrete coatings
- steel coatings
- anti-corrosive primers

### **Epodil® Reactive Diluents**

Viscosity reduction for ease of application; improved pigment/filler wetting. Mono-, di-, and multifunctional diluents.

- metal coatings
- concrete coatings

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### **Amicure® Polycarbamide Curing Agents**

Designed for use with polyisocyanate resins; deliver coatings with rapid hardness development, excellent low temperature cure, good color and UV stability and excellent surface appearance

- concrete coatings
- direct-to-metal (DTM) coatings

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### **Hybridur® Waterborne Polymer Dispersions**

For one part (1K) systems; rapid dry; low VOC; barrier properties; durability and UV resistance

- wood coatings (e.g. gymnasium floors)
- metal coatings
- concrete coatings
- hard plastic coatings (e.g. automotive interiors)



### **Contact**

#### **Epoxy Curing Agents, Customer Service**

[www.evonik.com/crosslinkers-contacts](http://www.evonik.com/crosslinkers-contacts)

Please scan this QR Code to find further information or visit

[www.evonik.com/crosslinkers](http://www.evonik.com/crosslinkers)



## Coating & Adhesive Resins

The Coating & Adhesive Resins Business Line manufactures high-quality binders based on polyesters and polymethacrylates for a broad spectrum of markets and applications. It includes solutions for coil coating and food packaging applications.

### DYNAPOL®

Polyester resins designed for can coating, coil coating & flexible packaging applications

- BPA free
- High molecular weight
- High chemical resistance

NEW  
NAME!

### DEGACRYL® HS (formerly DEGALAN®)

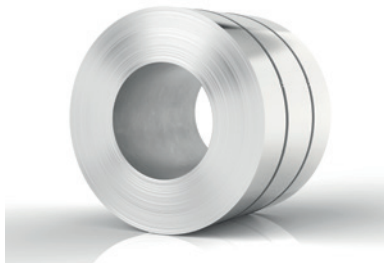
Polymers for heat seal coating formulations

- Universal and secure sealing
- Transparency with anti-fog
- Recyclable PET packaging



In addition, the Coating & Adhesive Resins Business Line supplies solutions for a multitude of other industries. From polymers for hot melts, to reactive sealants and synthetic waxes, they provide specially designed products for a wide variety of adhesive & sealant applications.

<b>Product name</b>	<b>Applications</b>
<b>POLYVEST® (Polybutadiene)</b>	Car doors, engine hoods, sound dampening, printing plates, defoamers, foams, printing inks, insulated glass sealants
<b>VESTOPLAST® (APAO)</b>	Raw material for hot melt adhesives for e.g. hygiene, automotive and woodworking applications
<b>VESTOWAX® (FT Wax)</b>	PVC lubricants, printing inks and coatings or as additive for hot melt formulations
<b>DYNACOLL® (Polyester)</b>	Bonding/lamination of car interiors; lamination for panel bonding and sandwich construction



**Contact**  
**Coating & Adhesive Resins**

Please scan this QR Code to find further information or visit [www.evonik.com/designed-polymers](http://www.evonik.com/designed-polymers)



# Specialty Methacrylates

VISIOMER® methacrylates are primarily used as building blocks for polymeric binders. Their excellent weather resistance originates from their UV stability.

The desired properties of coatings are obtained from various functionalities of methacrylate monomers. High solids and low VOC coatings are possible with bulky side chain methacrylates. Specialty methacrylate monomers further provide improved wet adhesion, robust freeze-thaw stability and durability for architectural coatings.

Product name	Applications
VISIOMER®	Methacrylate monomers for manufacturing waterborne and solventborne coatings and adhesives resins



## Contact

### Specialty Methacrylates

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Please scan this QR Code to find a suitable contact partner at Evonik or visit [www.visiomer.com](http://www.visiomer.com)



# High Performance Polymers

VESTOSINT® and VESTAMELT® bring structure to coatings. Our polyamide 12 powders transform drab surfaces into decorative or functional structured elements. Surfaces treated with coatings which are formulated with VESTAMELT® or VESTOSINT® additives have high flexural strength and elasticity and excellent abrasion resistance. Our VESTAKEEP® brand of PEEK (Polyether ether ketone) powders deliver high performance coatings, offering high temperature performance, strength, durability, and excellent wear resistance.

Product name	Applications
VESTOSINT®	Coating of metal, coil coating, textured paints, wood paints, packaging foils, rubber surfaces
VESTAMELT®	Coil coating, textured paints
VESTAKEEP®	Coating of metal (electrostatic spraying, flame spraying), dispersion coating, tribological coating



## Contact

### High Performance Polymers

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[www.vestosint.com](http://www.vestosint.com)

[www.vestamelt.com](http://www.vestamelt.com)

[www.vestakeep.com](http://www.vestakeep.com)

## Performance Intermediates

Performance Intermediates offers a broad range of high-quality ingredients and additives which are also used for the paints and coatings industry.

Product name	Applications
<b>1,3-Butadiene</b>	1,3-Butadiene is used for the production of copolymers and styrene butadiene latex (SBL) for the paint industry as well as for the production of high solid styrene butadiene rubber (HSSBR), liquid polybutadiene (LPBD) and nitrile butadiene rubber (NBR) for the coatings industry
<b>2-Propylheptanol</b>	2-Propylheptanol (2-PH) is used in the production of 2-Propylheptacylate, which may be used for the manufacture of coatings
<b>DRIVOSOL®</b>	The DRIVOSOL® product family is used as a propellant in paint aerosols with various mixing ratios of the components n-Butane, Iso-Butane and Propane. The mixing ratio can individually be adapted to your requirements by flexible pressure settings in a range from 1.2 to 7.8 bar. Create your individual mix with our DRIVOSOL® Tuner: <a href="http://drivosol-tuner.evonik.com">drivosol-tuner.evonik.com</a>
<b>ELATUR® CH</b>	Diisononyl-cyclohexanoate (DINCH) is a plasticizer used for the manufacture of coatings, inks and colors
<b>ELATUR® DPT</b>	ELATUR® DPT (di(iso)-pentyl- terephthalate) is a new fast fuser for special PVC applications, like coatings flooring, wall coverings and films. It is especially effective when used in combination with ELATUR® CH
<b>Isotridecyl alcohol</b>	Isotridecyl alcohol (ITDA) can be used as and for the production of specialty solvents as well as specialty resins for coatings & inks
<b>Tertiary-Butanol</b>	Tertiary-Butanol (TBA) is offered in different qualities (pure and azeotrope) and is used in the production of hydroxyethyl cellulose, which is a thickener for dispersions, film-building agent for distempers and the main component of wallpaper paste
<b>VESTINOL® 9</b>	Diisononyl-phthalate (DINP), an INA-based plasticizer, used for the manufacture of coatings, inks and colors



**Contact**

**Performance Intermediates**

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[www.evonik.com/c4-chemicals](http://www.evonik.com/c4-chemicals)



# Functional Silanes

Dynasylan® functional silanes are used as additives in coating formulations to boost adhesion, improve weathering and durability, and also change the surface properties of the coating. Our proprietary technologies include low VOC multi-functional oligomeric silanes, water-borne HYDROSIL series, ethyl polysilicate SILBOND® binders, stain repellent F-series and heavy metal-free corrosion protection SIVO® solgel binders. Dynasylan® is the solution for your next cutting-edge idea. Protectosil® products provide long-term protection for mineral-based substrates and are well-known as hydro- and oleophobic agents, preventing corrosion, graffiti and other surface damaging effects.

Product name	Applications
<b>Dynasylan®</b>	Adhesion promotion, crosslinking, surface modification
<b>Dynasylan® GLYEO</b>	Adhesion promotion for water-based coating systems
<b>Dynasylan® HYDROSIL</b>	Waterborne, adhesion promotion
<b>Dynasylan® SIVO®</b>	Cr-VI-free corrosion protection
<b>Dynasylan® SILBOND®</b>	Binder for inorganic zinc rich coatings, inorganic zinc rich paints
<b>Protectosil®</b>	Water repellents , graffiti control, corrosion control (admixed and surface applied) and surface protection (easy-to-clean)





## Contact

### Functional Silanes

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