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VESTOWAX®

Designed Polymers by
Adhesive Resins Product Line



VESTOWAX®

Welcome from the Adhesive Experts of Evonik

Discover our product portfolio designed for the Adhesives & Sealants Industry. Based on our different polymer backbone systems, we develop individual solutions according to your needs.

Your benefits – our values

Focus on customer orientation

We are a solution provider. Our mission is to create tailor-made solutions to ensure that every one of your projects is a success. That is why we are considered to be the first choice when it comes to solving your challenging tasks. Thanks to our global presence we can respond promptly and make your individual wishes come true.

Perfectly targeted expertise

With our team of adhesive experts and our dedicated sales force, you can be assured that we offer a wealth of expertise. We do not only provide you with capabilities spanning from research and development through to logistics, but we can also offer you valuable market knowledge and in-depth technical expertise. That is why our know-how is spot-on, every time.

Your markets – our focus

We offer custom-made Adhesive & Sealant solutions for a broad spectrum of industries. If you don't find your line of business here, just talk to us. Our team will gladly help you accomplish your project.

Your solutions – our brands

DYNACOLL®

Polyester-Polyols, Copolyesters, Polyacrylates

VESTOPLAST®

Amorphous Poly-Alpha-Olefins

VESTOWAX®

Fischer-Tropsch-Waxes

Absolute reliability

Any good business partnership is based on reliability. There is nothing more valuable than knowing that your business partner will be there for you. We take this to heart and offer you excellent product quality, security of supply and our continuous drive to make your challenges our own – this way we help you overcome any obstacle along the way.

Profiting from future orientation

Improving performance and efficiency can only be accomplished if you constantly stay ahead. That is why we identify future trends as early as possible, collaborating with you to develop innovative solutions. Our foresight is valued by customers and partners alike, because they know that we always keep an eye on the future to guarantee long lasting success.

- Automotive
- Electronics
- Construction
- Processing Aides
- Packaging
- Product Assembly

POLYVEST®

Liquid Polybutadienes

DEGALAN®

Methacrylate Binders for Heat Seal Lacquers

Our Product Range

VESTOWAX®

With our VESTOWAX® product range, we offer synthetic waxes produced by the Fischer-Tropsch-Process. They act as your valuable additive for hot melt adhesives, plastic additives and a multitude of other applications.

DYNACOLL®

DEGALAN®

VESTOPLAST®

POLYVEST®



The world of waxes

General properties

The definition of the term „wax“ is based less on the chemical composition of a substance than on its physical properties:

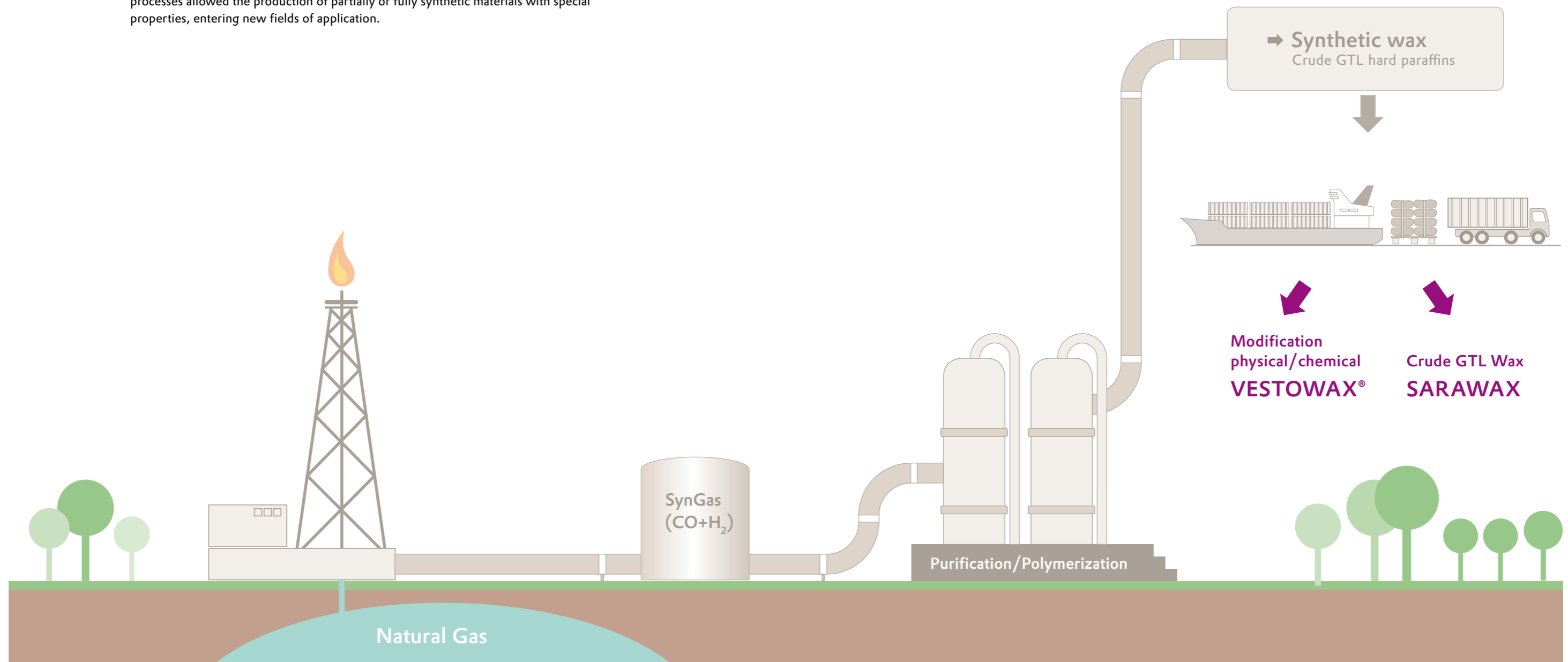
- kneadable at 20 °C, with a consistency ranging from solid to brittle-hard
- coarsely to finely crystalline, translucent to opaque
- melting above 40 °C without decomposition
- already of relatively low viscosity at just above the melting point
- highly temperature-dependent consistency and solubility
- can be polished under gentle pressure

This property profile covers a multitude of materials from completely different sources. Waxes with plant and animal origin had been used for decades already, before industrial processes allowed the production of partially or fully synthetic materials with special properties, entering new fields of application.

Synthetic waxes

Effectivity you can buy

Evonik offers two product lines of synthetic waxes produced by Fischer-Tropsch-Process. The latest generation GTL (gas to liquid) technology yields Fischer-Tropsch hard paraffins of linear molecular structure and highest purity, possessing low viscosity in the melt and having molecular weights of between 500 and 1,000 g/mol.





GTL Sarawax and VESTOWAX® – The Value Additives

GTL Sarawax

Within a long-term partnership with Shell MDS (Malaysia), who is operating the production site at Bintulu, Evonik provides services as distributor and technical service provider for the high melting non-modified Sarawax grades in Europe, the Middle East, North Africa, India and South America.

GTL Sarawax SX 105 is the approved high-value standard additive for important applications especially in the hot melts and plastics industry (e.g. packaging hot melts, rigid PVC lubrication). High purity, low viscosity and narrow molecular weight distribution on very constant level allows an effective and reliable process control and tangibly increases the quality of final goods.

The unique combination of physical properties of the new GTL Sarawax SX 80 accommodates the tendency towards lower processing temperatures. A significantly lower melting point going along with high hardness and crystallinity allows for quick and safe processes within extended temperature ranges.

VESTOWAX®

In addition, the range of VESTOWAX® products includes modified FT-hard paraffins and chemically functionalized FT waxes, supplied globally.

The group of physically modified hard paraffins encompasses coarse powder and pellet grades with different molecular weight distribution as well as micronized powders of different particle shape, thus being well suited as processing aid and value additive for a huge number of processes and applications.

Besides the variation of physical condition, further refining by chemical modification extends the VESTOWAX® product range with FT hard waxes. Different levels of chemical functionality are obtained by oxidation, making the C-grades fully or partially compatible to e.g. polar plastics or water based systems.

Product Range

Properties									
Supply Form	Drop Point	Penetration Number	Acid Number	Saponification Number	Molecular Mass Mw	Density at 23 °C	Viscosity	Color	
	[°C]	[mm 10-1]	[mg KOH/g]	[mg KOH/g]	[g/mol]	[g/cm³]	[mPa s]		
GTL Sarawax *)									
GTL Sarawax SX 80	Prills	81 – 86 **)	3 – 6			approx. 600	approx. 0.84	< 10 (at 120 °C)	white
GTL Sarawax SX 105	Prills	114 – 120	1			approx. 1,000	approx. 0.94	< 20 (at 130 °C)	white
VESTOWAX® Hard paraffins									
EH 100	Pellets	102 – 110	2 – 5			approx. 600	approx. 0.92	< 20 (at 120 °C)	white
SH 105	Pellets	108 – 114	1			approx. 750	approx. 0.94	< 20 (at 120 °C)	white
SH 105	Powder	112 – 116	1			approx. 900	approx. 0.94	< 20 (at 120 °C)	white
H 2050 MG	Powder	114 – 120	1			approx. 1,000	approx. 0.94	< 20 (at 130 °C)	white
H 2050 SF	Microfine Powder	114 – 120	1			approx. 1,000	approx. 0.94	< 20 (at 130 °C)	white
SH 112	Microfine Powder	114 – 120	1			approx. 1,000	approx. 0.94	< 20 (at 130 °C)	white
FM 1012	Microfine Powder	114 – 120	1				approx. 1.00	< 20 (at 130 °C)	white
EP H 8024	Microfine Powder	81 – 86 **)	3 – 6			approx. 600	approx. 0.84	< 10 (at 120 °C)	white
VESTOWAX® Oxidates									
C 20	Flakes	106 – 111	1 – 3	10 – 13	20 – 30		approx. 0.96	< 20 (at 120 °C)	white
C 40	Micro Prills	102 – 108	2 – 4	24 – 27	40 – 50		approx. 0.96	< 20 (at 120 °C)	white
C 60	Micro Prills & Powder	100 – 105	3 – 5	29 – 34	50 – 62		approx. 0.96	< 20 (at 120 °C)	white

*) Available from Evonik in Europe, Middle East, North Africa, India, South America
 **) Congealing Point

Analytical methods

Drop Point

Determination according to DGF M-III 3.
 Also in accordance with DIN 51 801 or ASTM D 566.

Penetration Number

Determination according to DGF M-III 9b.
 Also in accordance with DIN 51 579 or ASTM D 1321.

Acid Number

Determination according to DGF M-IV 2.
 Also in accordance with DIN 53 402 or ASTM D 1386.

Saponification Number

Determination according to DGF M-IV 2.
 Also in accordance with DIN 53 401 or ASTM D 1387.

Molecular Mass

Determination by HT-GPC.

Density at 23 °C

Determination according to DIN 53 479.

Viscosity

Determination according to DIN 52 007/1.



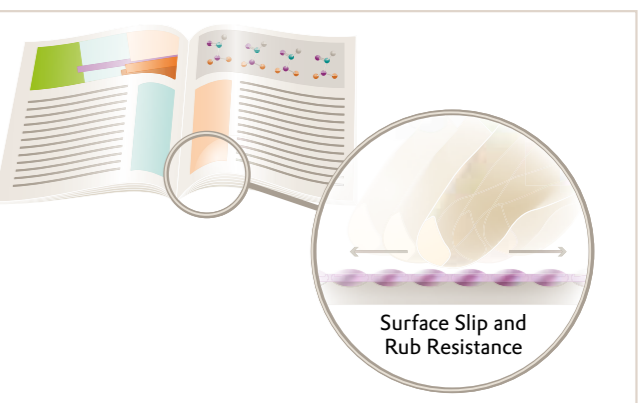
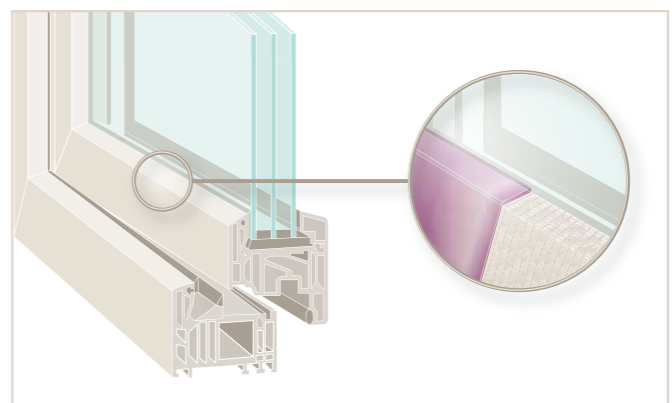
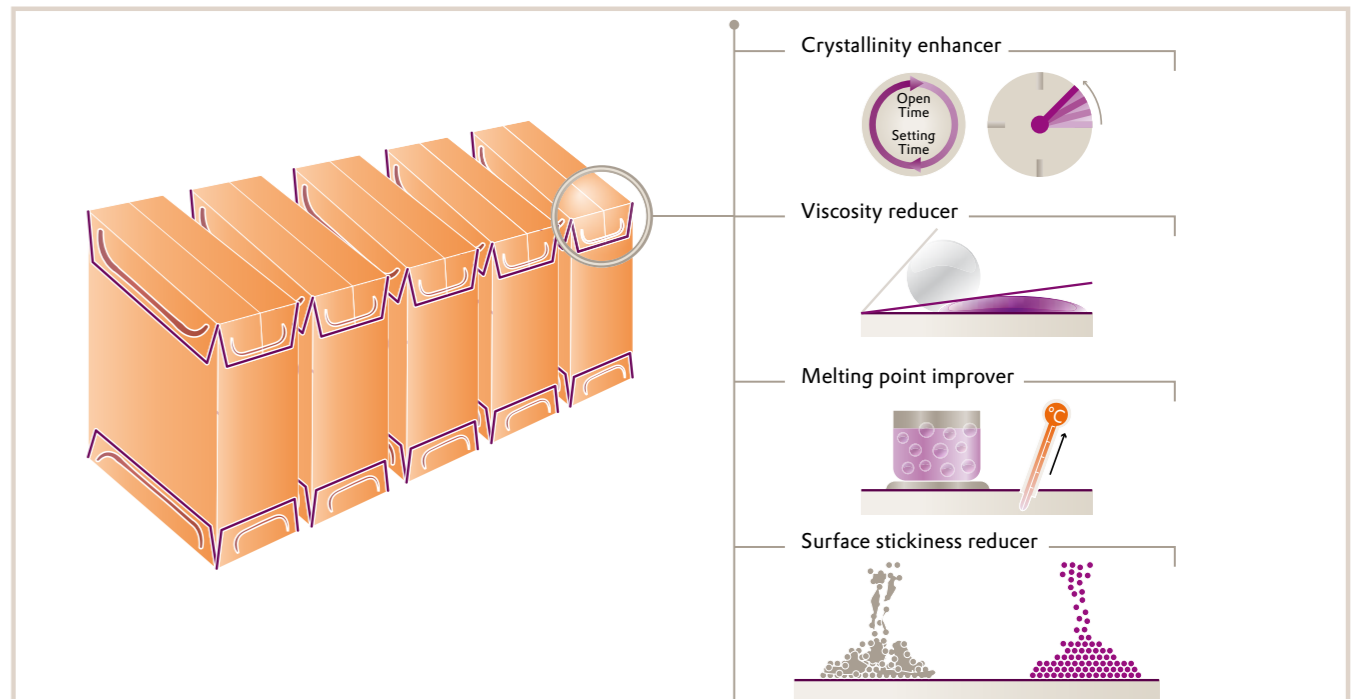
Applications

	GTL Sarawax		VESTOWAX® Grades									
	SX 80	SX 105	EH 100	SH 105	H 2050 MG	H 2050 SF	SH 112	FM 1012	EP H 8024	C 20	C 40	C 60
Hot Melts												
Crystallinity improver	•	•		•								
Viscosity reducer	•	•		•								
Melting point improver	•	•		•								
Surface stickiness reducer	•	•		•								
Plastics Processing												
Lubricants for PVC	•	•		•	•							•
Nucleating agent for expandable polystyrene				•	•							
Dispersing aid for pigments and fillers		•		•	•							•
Processing aid for rubber	•	•		•								
Internal mould release agent for thermosetting plastics				•								•
Mould release agent for waterborne systems											•	•
Mould release agent for solventborne systems	•	•	•								•	
Printing Inks												
Rub resistance improver						•	•	•	•			
Slip improver and anti-blocking agent						•	•	•	•			
Paints												
Scratchproofing agent						•	•	•	•			
Matting agent							•	•	•			
Processing aid for powder coatings					•	•	•					
Technical Emulsions												
Sewing yarn lubricant										•	•	•
Sizing agent											•	•
Cosmetics												
Lipstick hardener	•		•	•								
Oil binder for pastes	•		•	•								
Dispersing aid for color-cosmetics							•	•				
Polishes												
Dry-bright emulsions											•	•
Solventborne systems				•							•	
Wax Compounds & Candle Additives												
Dispersing aid for dyes										•	•	•
Hardening	•	•		•								

Discover VESTOWAX® as your value additive for a broad field of applications

VESTOWAX® as highly effective additive for your hot melt formulation is the perfect tool to:

- adjust your open and setting time
- reduce the melt viscosity
- improve the surface wetting of the final adhesive
- reduce the tendency of the melt to show stringiness
- improve the barrier action with respect to water vapour



VESTOWAX® as PVC Lubricant

Solve the challenges in your PVC processing by using VESTOWAX® as a lubricant. Optimize your production process with regard to cost efficiency by decreasing energy consumption due to a reduced kneading resistance and minimize the risk of early polymer decomposition during extrusion. Additionally add an extra touch of surface smoothness and gloss to your final product as VESTOWAX® achieves a significant reduction of friction between the polymer melt and the surface of the machinery.

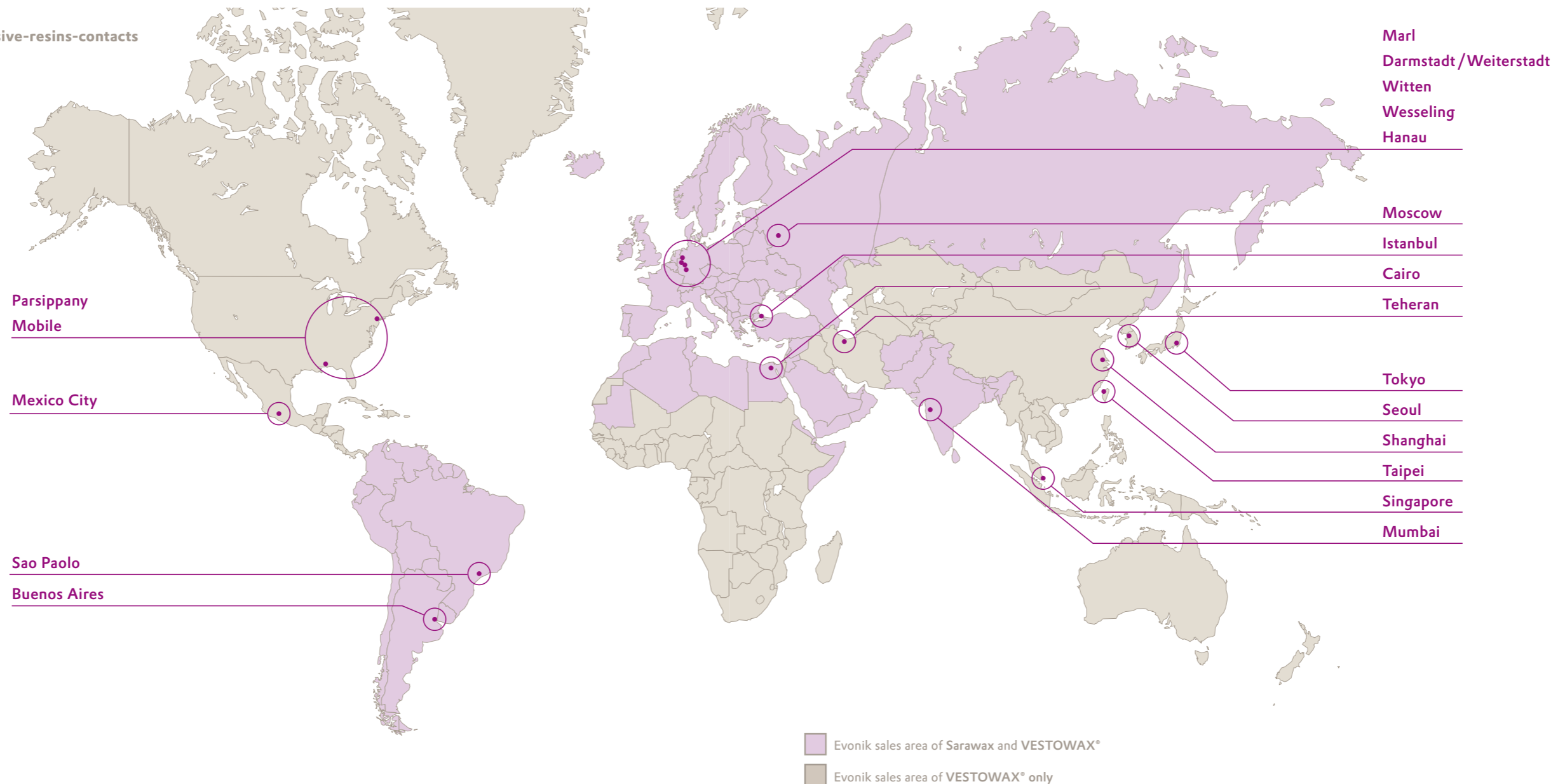
VESTOWAX® in Printing Inks and Coatings

Use VESTOWAX® to influence some major properties of Printing Inks and Paints such as rub resistance, scratch resistance, surface slip and water repellency and thus improve the appearance and the quality of your final product. Enjoy the benefits of a fast, clean and smooth production process by adding VESTOWAX® to your powder coating blend.

Find more information about the diverse application fields on www.evonik.com/adhesive-resins

Designed Polymers: Discover our global network

Find your regional contact:
<http://evonik.com/adhesive-resins-contacts>



Your global contacts:

North- & Central America

Evonik Corporation
Resource Efficiency
Coating & Adhesive Resins
299 Jefferson Road
Parsippany, NJ 07054
USA

PHONE +1 973 929-8453
adhesives@evonik.com

South America

Evonik Degussa Brasil Ltda.
Resource Efficiency
Coating & Adhesive Resins
Alameda Campinas 579-10
01404-000 Sao Paulo
Brazil

PHONE +55 11 3146 2156
adhesives@evonik.com

Europe

Evonik Resource Efficiency GmbH
Coating & Adhesive Resins
Paul-Baumann-Straße 1
45764 Marl
Germany

PHONE +49 2365 49-19747
adhesives@evonik.com

Middle East, Africa, India

Evonik Gulf FZE
Resource Efficiency
Coating & Adhesive Resins
Dubai Silicon Oasis, Office E-107
Dubai
UAE

PHONE +971 4 3724173
adhesives@evonik.com

China, South-East Asia

Evonik Specialty Chemicals Co., Ltd.
Resource Efficiency
Coating & Adhesive Resins
55 Chungong Road
Xinzhuan Industry Park
Shanghai, 201108
China

PHONE +86 21 6119-3274
adhesives@evonik.com

North Asia

Evonik Japan Co., Ltd.
Resource Efficiency
Coating & Adhesive Resins
Shinjuku Monolith 12F
2-3-1, Nishi-Shinjuku, Shinjuku-ku
Tokyo 163-0938
Japan

PHONE +81 3 5323-7409
adhesives@evonik.com