

# DEGALAN<sup>®</sup>

Designed Polymers by Adhesive Resins Product Line



DEGALAN<sup>®</sup>

# 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.

### 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.

## 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.

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

## YOUR SOLUTIONS – OUR BRANDS

**DYNACOLL®**  
Polyester-Polyols, Copolyesters, Polyacrylates

**VESTOPLAST®**  
Amorphous Poly-Alpha-Olefins

**VESTOWAX®**  
Fischer-Tropsch-Waxes

**POLYVEST®**  
Liquid Polybutadienes

**DEGALAN®**  
Methacrylate Binders for Heat Seal Lacquers

## Our Product Range

DYNACOLL®

VESTOPLAST®

VESTOWAX®

POLYVEST®

**DEGALAN®**

DEGALAN® methacrylate binders represent an excellent solution for heat sealing applications in the packaging industry. They are ideally suited for formulation of high-quality lacquers to provide an excellent and secure heat sealing in combination with smooth peeling.



# DEGALAN®

## Designed Polymers for Adhesives & Sealants

### BINDERS FOR HEAT SEALING APPLICATIONS

With its DEGALAN® binders Evonik offers a unique product portfolio of functional methacrylic co-polymers. These binders represent an excellent solution for heat sealing applications in the packaging industry.

Our functional binders can be divided into four groups based on their appearance:

- DEGALAN® - Bead Polymers
- DEGALAN® - Organic Solutions
- DEGALAN® - Organic Dispersions
- DEGALAN® - Aqueous Dispersions

Our DEGALAN® binders for heat sealing applications are ideally suited for formulation of high-quality lacquers to provide an excellent and secure heat sealing in combination with smooth peeling.

DEGALAN® organic dispersions provide direct adhesion to aluminum or PET lidding material for economical and environmentally friendly packaging solutions. All common cup materials from polar polystyrene to non-polar polypropylene can be sealed, PET and PLA included.

All products comply with international regulations for incident food contact.

DEGALAN® methacrylate bead polymers are usually supplied in paper bags. DEGALAN® organic solutions, dispersions as well as aqueous dispersions can be supplied in drums, IBCs or tank trucks.

### Your benefits at a glance

- Excellent seal and peel properties on aluminum foil or film structures
- Outstanding smooth peel effect
- Wide property range: from easy opening to high sealing strength
- Multi-purpose sealing capabilities to various substrates
- Economical and environmental friendly packaging solutions

### Analytical Methods

**Solid Content**  
Determination according to DIN EN ISO 3251.

**Viscosity Number**  
Determination according to DIN 51562 respectively DIN EN ISO 1628-1.

**Dynamic Viscosity**  
Determination according to DIN EN ISO 3219.

**Glass Transition Temperature (Tg)**  
Determination according to DIN 53765 respectively DIN EN ISO 11357-1.

**Molecular Weight (Mw)**  
Determination according to DIN 55672-1.

## DEGALAN®

### Product Information

	Properties						Adhesion to Aluminum			Adhesion to PET			Sealable versus				
	Solvent	Solid Content [%]	Viscosity Number [cm <sup>2</sup> /g]	Dynamic Viscosity [mPa·s]	Dilutability <sup>1) 3)</sup> Solubility <sup>2) 3)</sup>	Glass Transition Temperature (Tg) [°C]	Direct	Primered with PVC <sup>5)</sup>	In formulation with PVC	Direct	Primered with PES <sup>6)</sup>	Formulation with PVC required <sup>7)</sup>	PVC	PS	PP	PET	PLA
<b>Bead Polymer</b>																	
<b>P 24</b>	-	100	55	450 <sup>4)</sup>	E, K	43		●	●		●	●	●	●			
<b>VP P 34</b>	-	100	55	450 <sup>4)</sup>	E, K	46	●						●	●			
<b>Organic Solution</b>																	
<b>4792 L</b>	Methyl ethyl ketone	53 - 57	40	1.500 - 4.000	E, K	48		●	●		●	●	●	●			
<b>4793 L</b>	Ethyl acetate	53 - 57	40	1.500 - 4.000	E, K	48		●	●		●	●	●	●			
<b>Organic Dispersion</b>																	
<b>PM 555</b>	n-Butyl acetate/ Methyl ethyl ketone 70/30	44 - 46	163	500 - 1.500	E, K	-48, 29		●	●		●		●	●	●	●	●
<b>VP 4220 E</b>	n-Butyl acetate/ Methyl ethyl ketone 70/30	44 - 46	117	500 - 2.500	E, K	-52, 43		●	●		●		●	●	●	●	●
<b>4150 E</b>	n-Propyl acetate/ Ethyl acetate/Isooctane 54/36.5/9.5	42 - 44	147	800 - 2.500	E, K	-48, 33		●	●		●		●	●	●	●	●
<b>VP 4250 E</b>	n-Propyl acetate/ Ethyl acetate/Isooctane 52/39/9	44 - 46	144	800 - 3.500	E, K	-55, 45		●	●		●		●	●	●	●	●
<b>VP 4190 E</b>	n-Propyl acetate/ Ethyl acetate/Cyclohexane 60/37/3	43 - 45	157	500 - 2.000	E, K	-50, 34		●	●		●		●	●	●	●	●
<b>PM 666</b>	n-Butyl acetate/ Methyl ethyl ketone 70/30	44 - 46	157	1.000 - 3.500	E, K	-51, 29	●				●		●	●	●	●	●
<b>VP 4221 E</b>	n-Butyl acetate/ Methyl ethyl ketone 70/30	44 - 46	126	1.000 - 4.000	E, K	-52, 32	●				●		●	●	●	●	●
<b>4151 E</b>	n-Propyl acetate/ Ethyl acetate/Isooctane 47.8/43.8/8.4	39 - 42	142	500 - 2.000	E, K	-51, 30	●				●		●	●	●	●	●
<b>VP 4251 E</b>	n-Propyl acetate/ Ethyl acetate/Isooctane 53/38/9	44 - 46	142	1.000 - 4.000	E, K	-51, 44	●				●		●	●	●	●	●
<b>VP 4311 E</b>	n-Propyl acetate	44 - 46	64	500 - 3.000	E, K	-59, 30, 60	●				●		●	●		●	●
<b>VP 4322 E</b>	n-Propyl acetate/ Methyl ethyl ketone 75/25	39 - 41	48	1.500 - 8.000	E, K	57	●				●		●	●		●	●
<b>4174 E</b>	n-Propyl acetate/ Ethyl acetate/Isooctane 49/42.5/8.5	46 - 48	171	1.000 - 3.500	E, K	-48, 33	●				●		●	●	●	●	●
<b>VP 4294 E</b>	n-Propyl acetate/ n-Heptane/ tert-Butyl acetate 64/26/5/5	50 - 53	136	800 - 3.500	E, K	-52, 43	●				●		●	●	●	●	●
<b>Aqueous Dispersion</b>																	
<b>VP 4240 D</b>	Water	49,5 - 52	not determined	100 - 500	W	15, 49	●						●	●			●

<sup>1)</sup> for dispersions and solutions  
<sup>2)</sup> for solids

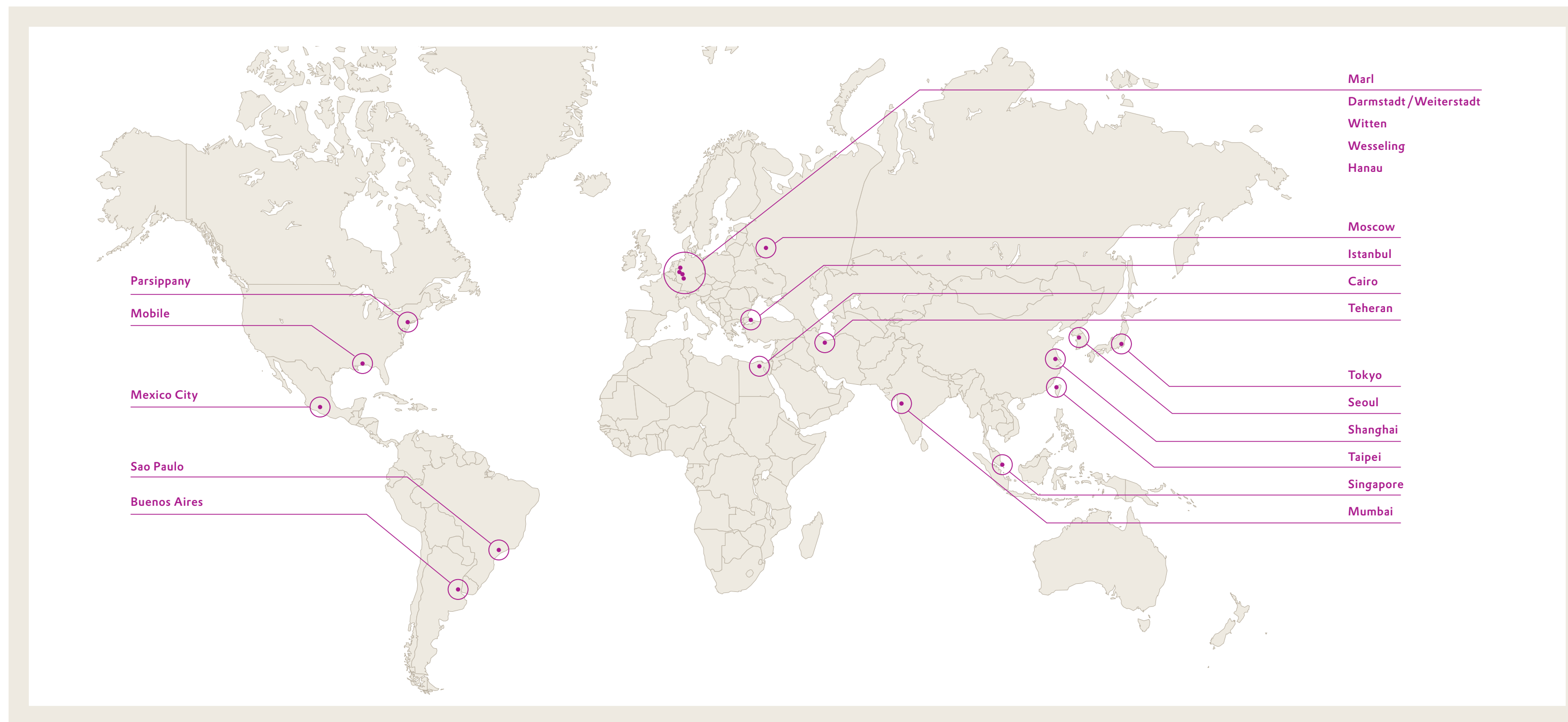
<sup>3)</sup> E = Esters, K = Ketones, W = Water  
<sup>4)</sup> 40% in MEK

<sup>5)</sup> PVC adhesion promoter like Vinnol® terpolymer grade from e.g. Wacker Chemie AG, Burghausen, Germany  
<sup>6)</sup> Polyester like Dynapol® L 206 oder L 208 from Evonik Resource Efficiency GmbH, Marl, Germany

<sup>7)</sup> to achieve good adhesion on primered PET film  
<sup>8)</sup> PLA (Poly lactic acid)

## Designed Polymers: Discover our global network

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