



For the perfect chemistry.



LIST OF PRODUCTS



Schmits Chemical Solutions

develops and supplies compounds for the international textile and nonwoven industry. Our chemical solutions, divided into 6 product groups, are developed to give your products one or more distinctive characteristics or optimize your product through which you will be able to obtain a decisive advantage in your market. In a way you can compare us with a five star restaurant. There is a lot on our menu that has proven itself, but sometimes the customer prefers à la carte. And when you need something truly tailor-made, our R&D department will come up with a Chef's Special. We will always make sure we find a solution that fits. Let's go for the perfect chemistry.



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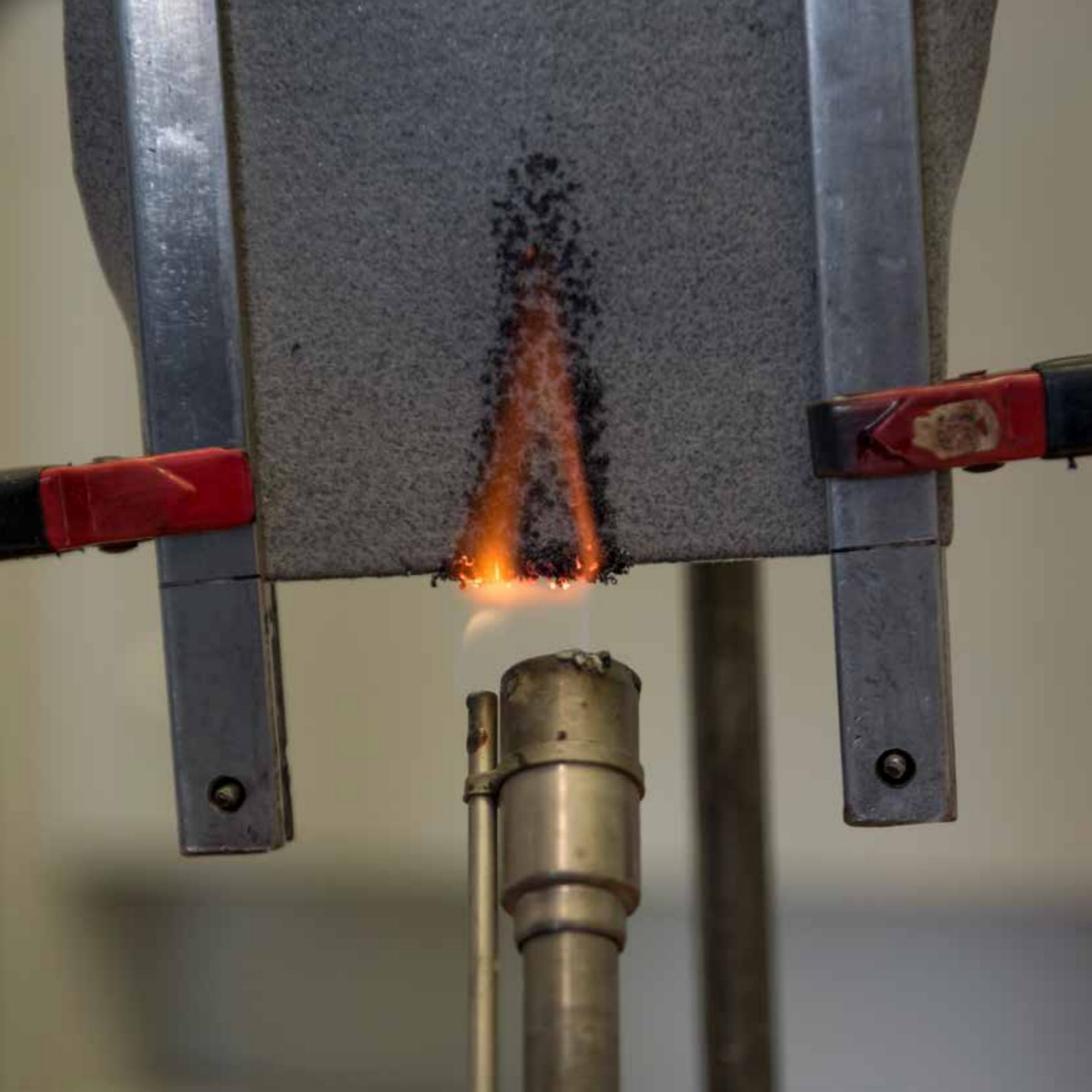
This product group provides special features to the surface of your substrate/material. The product name for this group is BEMICOAT.

14 ADDITIVES

This range of products is supplementary to the product groups mentioned above, with the purpose to optimize and expand their usability.

Each product group will be covered in this list of products. To show the suitability on different specifications and techniques, the following symbols are used:

- Excellently suitable
- ◐ Suitable
- Not suitable



FLAME RETARDANCY

Our BEMIFLAME products make sure your substrate will be safer. We offer a selection of halogen & antimony free flame retardants, with a wide range of possible applications. Offering solutions to a diverse range of industries - such as the automotive & aircraft industry, building, furniture - our flame retardants meet the industry's most common standards.

BEMIFLAME	PHYSICAL PROPERTIES				APPLICATION			SUBSTRATES					DURABILITY		SPECIAL CHARACTERISTICS
	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Full surface paste	Padding	Spray	Cotton	Polyester	Polyamide	Glass fibre	Paper	Wash (°C)	Dry-cleaning	
CFC	52	6	<1000	100-130	○	●	●	●	◐	◐	●	◐	n/a	●	Cost-efficient, highly suitable for cellulose
PF-N	50	6	<1000	100-160	○	●	●	●	●	◐	●	◐	n/a	●	Phosphate-free
ND	50	5	<1000	100-150	○	●	●	●	●	●	●	●	n/a	●	Multi-usable, DIN 4102-B1 certified, non-yellowing
NWM	51	6	<1000	100-200	○	●	●	●	●	◐	●	●	n/a	●	Dry handle, not yellowing, multi-usable
PSC	50	4	<1000	100-200	○	●	●	●	●	●	○	◐	n/a	●	Highly efficient on polyester (blends), non-yellowing
PES	93	2 ⁽¹⁾	<1000	190	◐	●	○	○	●	◐	○	○	60	●	DIN 4102-B1 certified, durable for polyester
PES-N	93	8	<1000	190	◐	●	○	○	●	◐	○	○	60	●	pH neutralized version of BEMIFLAME PES
LTH	60	9	3500	100-160	●	◐	◐	◐	○	○	●	●	n/a	●	Inorganic FR filler instead of chalk, plaster or titanium dioxide
MPD	55	6	3500	100-160	●	◐	○	●	●	●	●	●	n/a	●	Highly efficient FR filler
BCP	50	8	2000	100-150	●	○	○	●	○	○	○	○	n/a	●	Flame retardant coating, soak resistant
BCRS	43	6	7500	100-150	●	○	○	●	●	◐	○	○	n/a	●	Soak resistant flame retardant back coating based on red phosphorus
BCF	45	10	4000	160	○	○	○	●	●	◐	○	○	40	●	Full surface foam coating, flame retardant, high heat resistant coating
NTS	35	6	<1000	100-140	○	●	●	●	●	◐	●	●	n/a	●	Multi-usable, intumescent flame retardant
NTS-D	50	6	3500	100-160	◐	●	○	●	●	●	●	●	n/a	●	Multi-usable, intumescent FR filler, melamine-free

⁽¹⁾ 100 g/l in water



REPELLENCY

To ensure your substrate rejects any kind of liquid, we have built up an extensive portfolio of BEMIGUARD products. Our repellents are based on the latest technologies, such as fluorine free products and C6 fluorocarbon chemistry. Besides being used as a separate product, we are also able to meet your requirements by providing a customized solution for the combination between a BEMIGUARD, BEMIFLAME and/or BEMIFIX product.

BEMIGUARD	PHYSICAL PROPERTIES				DURABILITY		REPELLENCY					SPECIAL CHARACTERISTICS
	Solid content (%)	pH	Drying (°C)	Ionogenicity	Wash (°C)	Dry-cleaning	Water	Soil	Oil	Petrol	LAD effect	
Fluorine-free												
WR	20	6	>70	cationic	40	●	●	○	○	○	○	Foamable
WRP	50	4,5	>100	non-ionic	n/a	○	●	○	○	○	○	Paraffin wax
WRMP	30	2,5	100-180	slightly cationic	40	●	●	○	○	○	○	Foamable, high performance
WRHP	30	3	100-180	slightly cationic	40	●	●	○	○	○	○	Good performance on Bundesmann test
WRMX	27	5	140-160	slightly cationic	60	●	●	●	○	○	○	Good wash resistance at 60°C, Bundesmann test
WRMT	21	5	140-160	slightly cationic	60	●	●	●	○	○	○	Good wash resistance at 60°C
WR RT	15	5 ⁽²⁾	>20	cationic	n/a	○	●	●	○	○	○	Imparts repellent properties already after drying at room temperature
WR RTC	20	4,5	>20	cationic	n/a	○	●	○	○	○	○	Imparts repellent properties already after drying at room temperature
C6-based technology												
ECO	20	2	120-180	slightly cationic	40	●	●	●	●	●	○	Compatible with BEMIFLAME PF-N
ECO WD	23	3	130-170	slightly cationic	60	●	●	●	●	●	○	Wash durable, compatible with BEMIFLAME PES
ECO M	26	3	130-170	slightly cationic	40	●	●	●	●	○	○	Cost efficient
ECO NN	25	3	150-180	non-ionic	40	●	●	●	●	●	●	LAD effect, compatible with BEMIFLAME PF-N, ND
ECO NN WDP	22	3	130-170	non-ionic	60	●	●	●	●	●	●	Wash durable, compatible with BEMIFLAME PES, suitable for wool
ECO BDM	30	4	150-170	non-ionic	40	●	●	●	●	○	○	BUNDESMANN-approved for several substrates
ECO RT	20	3	>20	cationic	40	●	●	●	●	○	○	No curing required
ECO MSB	30	4	150-170	slightly cationic	40	●	●	●	●	○	○	Multi-usable, compatible with BEMIFLAME PES

⁽²⁾ 100 g/l in water



POLYMER SOLUTIONS

The BEMIFIX product range consists of binders and includes VAC, V/ACR, ACR, PU and resin based polymers. These products form the key elements of a formulation and have a wide range of applications and characteristics, such as influencing the handle or dimensional stability of a typical material. The products can be used as a base- or top-coat or as a ready-to-use finish.

BEMIFIX	PHYSICAL PROPERTIES							APPLICATION					DURABILITY		SPECIAL CHARACTERISTICS
	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) ³⁾	Full surface paste	Full surface foam	Dot Coating	Padding	Spray	Wash (°C)	Dry-cleaning	
MCS	ACR	45	7	<1000	130	yes	S	●	●	●	●	●	40	●	Soft and elastic binder, multi-usable, formaldehyde-free
MCH	ACR	50	8	7000	130	no	M	●	●	●	●	●	40	●	Medium soft binder, tack -free, formaldehyde-free
VCS	VAC	55	5	3000	100-160	no	S	●	●	●	●	●	40	●	Soft binder, excellent adhesion to leather, formaldehyde-free
VCH	VAC	55	5	2500	100-160	no	H	●	●	●	●	○	40	●	Hard binder
CRW	V/ACR	45	4	<1000	160	yes	S	●	●	●	●	●	60	●	Soft binder, bookbinder's cloth
CRX	ACR	45	8	<1000	160	yes	S	●	●	●	●	●	60	●	Soft binder, multi-usable, low tack
PRS	PU	60	7	<1000	100-160	no	S	●	●	●	●	●	60	●	Soft binder, extremely elastic and flexible, highly concentrated, formaldehyde-free
PRH	PU	40	7	<1000	100-160	no	M / H	●	●	●	●	●	60	●	Very flexible thermoplast, approved for food contact, abrasion resistant, formaldehyde-free
PRN	PU	60	8	<1000	100-160	no	M / H	●	●	●	●	●	60	●	Tough, flexible, very high hydrolytic and electrolytic stability, highly concentrated, formaldehyde-free
PRM	PU	40	7	<1000	100-160	no	H	●	●	●	●	●	60	●	Tough binder, excellent top coat, formaldehyde-free
PRDS	PU	40	8	<1000	100-140	no	S	●	○	○	●	●	40	●	Soft and lightfast binder for outdoor and marine applications, formaldehyde-free
PRDH-N	PU	35	8	<1000	100-140	no	H	●	○	○	●	●	40	●	Hard and lightfast binder for outdoor and marine applications, formaldehyde-free
PRTC	PU	40	7	<1000	100-160	no	H	●	●	●	●	●	60	●	Hard, high hydrolytic stability, excellent topcoat, formaldehyde-free
PRW	PU	40	7	<1000	100-160	no	M	●	●	●	●	●	60	●	Tough, very elastic, high hydrolytic stability, formaldehyde-free

³⁾ S = soft, M = medium, H = hard

ADHESIVES

Our BEMICOLL products enable the adhesion of two surfaces. This product range consists of compounds according to three main principles: pressure sensitive adhesives (which can vary in tackiness), wet laminating and thermoplastic laminating.

Pressure sensitive adhesives	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOLL	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Laminating (°C)	Cross-linking	Full surface paste	Full surface foam	Dot Coating	Spray	Wash (°C)	Dry-cleaning	
TCL	ACR	60	8	<1000	20-150	n/a	no	●	●	○	●	40	●	Low tack, soft / flexible multi-usable adhesive, also wet laminating
TLR	ACR	45	7.5	<1000	20-150	n/a	no	○	●	○	●	n/a	●	Optimal combination of adhesive and cohesive strength
TCR	ACR	55	8	<1000	20-150	n/a	no	○	●	○	●	n/a	●	High tack, excellent adhesion on PP and PVC
TC	ACR	60	5	<1000	20-150	n/a	no	○	●	○	●	n/a	●	High tack, high temperature stable

Wet laminating	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOLL	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Laminating (°C)	Cross-linking	Full surface paste	Full surface foam	Dot Coating	Spray	Wash (°C)	Dry-cleaning	
WB	VAC	19	9	33000	5-40	n/a	no	●	○	○	○	n/a	●	Adhesive for wall covering
CR	ACR	55	7	4000	80-140	n/a	no	●	●	●	●	40	●	Highly elastic, low temperature adhesive

Thermoplastic laminating	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOLL	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Laminating (°C)	Cross-linking	Full surface paste	Full surface foam	Dot Coating	Spray	Wash (°C)	Dry-cleaning	
LPR	PU	33	8	13000	110-130	95-120	no	●	○	●	○	40	●	Shoes, sportswear and transfer labels, formaldehyde-free
MPR	PU	34	8	13000	120-140	120-150	no	●	○	●	○	60	●	Elastic transfer labels and sportswear, workwear and outerwear
HPR	PU	34	8	13000	130-150	140-170	no	●	○	●	○	95	●	Performance outerwear and medical wear, formaldehyde-free
LPS	PES	32	8	13000	100-120	110-120	no	●	○	●	○	60	●	Shoes, sportswear and transfer labels, formaldehyde-free
HPS	PES	33	8	12000	130-150	140-170	no	●	○	●	○	95	●	Workwear and automotive
LPM	PA	32	8	14000	100-140	100-140	no	●	○	●	○	60	●	Low temperature heat reactive adhesive
HPM	PA	32	8	14000	120-140	140-160	no	●	○	●	○	95	●	Medical wear
PT	PE	34	8	14000	130-150	150-170	no	●	○	●	○	95	●	Automotive and carpet backcoating

SPECIALTY COATINGS

Our BEMICOAT product group contain our sophisticated products. Our specialty coatings have the ability to provide special features to the surface of a substrate such as recyclability, anti-slip effect, an improved printability or protection against heat and liquids. BEMICOAT products can help you achieve unique selling points of the products you provide to your customers, so you will stay ahead in your market.

Anti-slip	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) ⁽⁴⁾	Full surface paste	Full surface foam	Dot Coating	Padding	Wash (°C)	Dry-cleaning	
NS	ACR	60	9	23000	130-150	yes	S/M	●	○	●	○	40	●	Excellent anti-slip coating, tack-free
NSH	PU	64	8.5	22000	160	yes	H	●	○	●	○	40	●	Hard / waterproof dot for outdoor applications, tack-free
NST	ACR	40	8	17500	100-130	yes	S	●	○	●	○	40	●	Slightly tacky anti-slip dotcoating

Printable	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) ⁽⁴⁾	Full surface paste	Full surface foam	Dot Coating	Padding	Wash (°C)	Dry-cleaning	
PCS	ACR	33	5	8500	160	yes	S	●	○	○	○	95	●	Soft printable coating
PCH	ACR	33	5	8500	160	yes	H	●	○	○	○	95	●	Hard printable coating
DPM	n/a	n/a	6	4000	100	n/a	n/a	●	○	○	●	n/a	●	Pre print treatment

Water column	PHYSICAL PROPERTIES							APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) ⁽⁴⁾	Full surface paste	Full surface foam	Dot Coating	Padding	Wash (°C)	Dry-cleaning	
WPS	PU	49	7	8000	100-120	yes	S	●	○	○	○	40	●	Elastic, good film forming, slightly tacky, basecoat
WPM	PU	40	8	8000	100-120	yes	M	●	○	○	○	40	●	Tough, durable coating, basecoat or topcoat
WPH	PU	40	8	8000	100-120	yes	H	●	○	○	○	40	●	Abrasion resistant, tough coating, topcoat
WCS	ACR	45	8	8000	100-120	yes	S	●	○	○	○	40	●	Elastic, good film forming, slightly tacky, basecoat
WCH	ACR	50	8	8000	100-120	yes	H	●	○	○	○	40	●	Tough, durable coating, basecoat or topcoat

Recyclable backcoatings	PHYSICAL PROPERTIES					APPLICATION			DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Laminating (°C)	Full surface paste	Full surface foam	Padding	Wash (°C)	Dry-cleaning	
BCR EA-N	EAA	32	8	<500	80-105	●	●	●	60	●	Poly (ethylene-acrylic), high adhesion to both polar and apolar surfaces, very good for outdoor applications
BCR PP	PP	34	10	5000	80-110	●	●	○	60	●	Polypropylene, low melting, good dimensional stability
BCR LDPE	LDPE	34	10	5000	105-125	●	●	○	60	●	Low Density Polyethylene, low melting temperature
BCR PA	PA	34	10	5000	140-180	●	●	○	60	●	Polyamide, relatively low melting, high dimensional stability
BCR PES	PES	34	10	5000	135-155	●	●	○	60	●	Polyester, high dimensional stability

⁽⁴⁾ S = soft, M = medium, H = hard

ADDITIVES

By adding our ADDITIVES products, (y)our chemical solutions can be improved in terms of applicability and usability. The products available in this category include dispersing agents, lubricants, thickeners, wetting agents, foaming and defoaming agents, and anti-static agents.

Dispersing agents	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIFUSE	Solid content (%)	pH	Viscosity (mPa.s)	Plasticizing effect	
XC-N	100	8 ⁽⁵⁾	<1000	no	Multi-functional and extremely cost-efficient
ST	40	8	<1000	no	Efficient stabilizing agent for hotmelt powders

Lubricants	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMILUBE	Solid content (%)	pH	Viscosity (mPa.s)	Quantity (g/l)	
K	2	6	3000	15	Short flow, high efficiency
L	1	7	4000	10	Long flow, high efficiency

Thickeners	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
THICKENER	Solid content (%)	pH	Viscosity (mPa.s)		
CR	30	3	<1000		Acrylic thickener
CRM	40	7	<3000		Multi-usable acrylic thickener
PR	40	8 ⁽⁵⁾	10000		Polyurethane thickener
G	31	7 ⁽⁵⁾	<1000		Multi-usable acrylic thickener, especially suitable for dotcoating formulations

Wetting agent	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIWET	Solid content (%)	pH	Viscosity (mPa.s)		
PGT-N	100	6 ⁽⁵⁾	<1000		Multi-usable wetting agent
SCR	100	n/a	<1000		Especially suitable for dotcoating formulations. Prevents build-up of deposits on rollers or screen

Crosslinking	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIFIX	Solid content (%)	pH	Viscosity (mPa.s)		
XL	45	6	<1000		Formaldehyde-free crosslinker
XLT	30	7	<1000		Formaldehyde-free crosslinker, MEKO-free

Foaming	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIFOAM	Solid content (%)	pH	Viscosity (mPa.s)		
F	9	10	4000		Multi-usable foaming and stabilizing agent
FS	30	10	<1000		Foam stabilizer
FG	28	8	<1000		Very effective foaming agent for instable foam
BS	30	7	<1000		Foam booster

Defoaming	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
DEFOAMER	Solid content (%)	pH	Viscosity (mPa.s)		
GS	100	5 ⁽⁵⁾	<1000		Mineral defoamer
SL	55	7	<1000		Silicone defoamer, easily water miscible, highly efficient
AT-N	100	n/a	<2000		Silicone-free

Anti-statics	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMISTAT	Solid content (%)	pH	Viscosity (mPa.s)		
M	10	5	<1000		Multi-usable anti-static agent
SP	50	10	1000		Anti-static agent

⁽⁵⁾ 10 g/l in water



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