

*Schmits International B.V.*

*develops and supplies compounds for the international textile and nonwoven industry. This list of products consists of 6 product groups. Our chemical solutions are developed to give your products one or more distinguishing characteristics or optimize your product, through which you will be able to obtain a decisive advantage in your market. The following pages contain a selection of our standard products. Furthermore one of Schmits' main strengths is to develop chemical solutions specifically for you.*



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Flame Retardancy consists of environmentally friendly flame retardants with a wide range of applicabilities. The product name for this group is Bemiflame.

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The Adhesives product group consists of ready-for-use compounds based on dispersed hotmelt powders or polymer dispersions. The product name for this group is Bemicoll.

## 10 POLYMER SOLUTIONS

An extensive range of polymer dispersions that can be used for a wide field of applications and functionalities. The product name for this group is Bemifix.

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Specialty Coatings is a group of products that provide special features to the surface of your substrate/material. The product name for this group is Bemicoat.

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Repellency composes the products that provide repellency or protection against e.g. soil, water, oil, petrol, bacteria and UV-light. The product name for this group is Bemiguard.

## 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 explained in the next pages. To show the suitability on different specifications and techniques, the following symbols are used:

- excellently suitable
- ◐ suitable
- not suitable

## NOTES

## FLAME RETARDANCY

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
GPM	50	5	<1000	100-150	○	●	●	●	●	○	●	●	n/a	●	Cellulose + blends
PSC	50	4	<1000	100-200	○	●	●	○	●	●	○	●	n/a	●	Highly efficient on polyester (blends), non-yellowing
PES	93	2 <sup>(1)</sup>	<1000	190	●	●	○	○	●	●	○	○	60	●	DIN 4102-B1 certified, durable for polyester
LTH	60	9	3500	100-160	●	●	●	●	○	○	●	●	40	●	Inorganic FR filler instead of chalk, plaster or titanium dioxide
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
NTS	35	6	<1000	100-140	○	●	●	●	●	●	●	●	n/a	●	Multi-usable, intumescent flame retardant

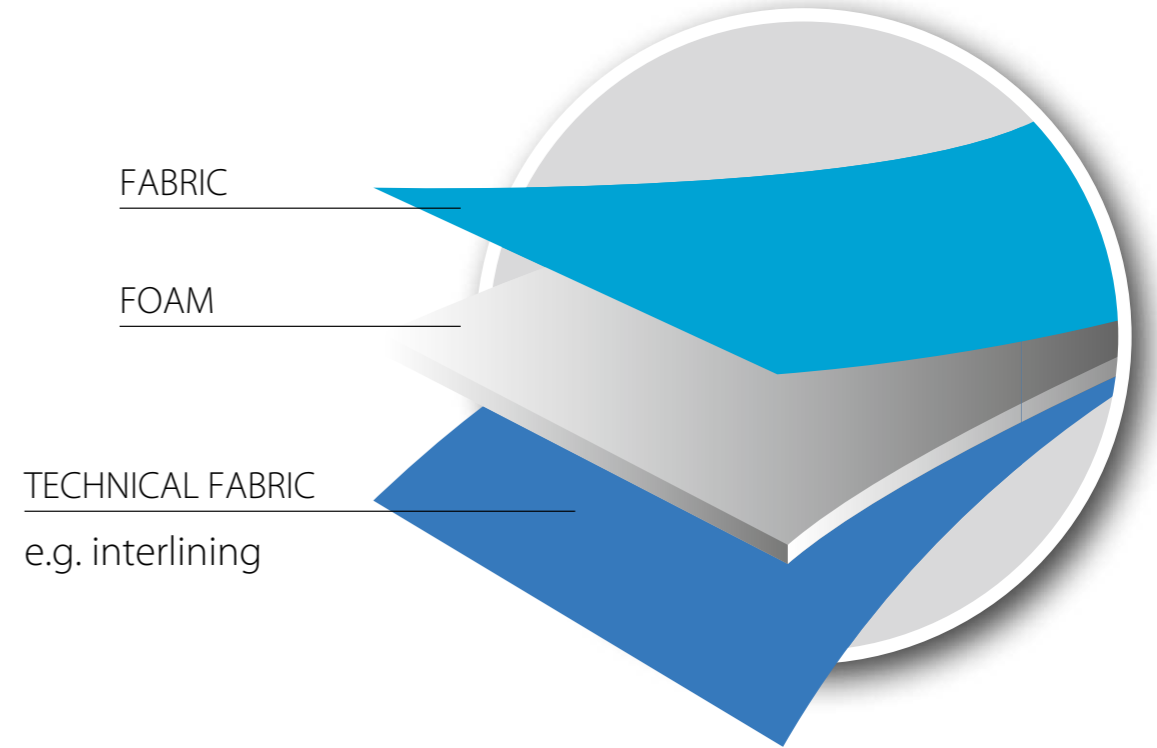
<sup>(1)</sup> 100 g/l in water

## ADHESIVES

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	
TC	ACR	60	5	<1000	20-50	n/a	no	○	○	○	●	n/a	●	Post-it effect
TCR	ACR	55	8	<1000	20-150	n/a	no	○	○	○	●	n/a	●	High tack, excellent adhesion on PP and PVC
THP	ACR	65	5	<1000	20-150	n/a	no	○	○	○	●	40	●	Very high tack, highly temperature stable, FDA approval

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
WRA	PVA	33	8	15000	20-140	n/a	no	●	○	●	●	n/a	●	Water reactive adhesive
CR	ACR	55	7	4000	80-140	n/a	no	●	●	●	●	40	●	Highly elastic, low temperature adhesive
TCL	ACR	60	8	1000	20-150	n/a	no	○	○	○	●	40	●	Soft / flexible multi-usable 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
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
CRL	ACR	52	7	25000	80-100	70-100	no	●	○	●	○	40	●	Low temperature heat reactive adhesive for dot coating
DCS	PU	24	8	25000	120-140	100-200	no	●	○	●	○	40	●	Underdot for doubledot coating



## POLYMER SOLUTIONS

BEMFIX	PHYSICAL PROPERTIES							APPLICATION					DURABILITY		SPECIAL CHARACTERISTICS
	Type of polymer	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) <sup>(3)</sup>	Full surface paste	Full surface foam	Dot Coating	Padding	Spray	Wash (°C)	Dry-cleaning	
VCS	VAC	55	5	3000	100-160	no	S	●	●	●	●	●	40	●	Soft binder, excellent adhesion to leather
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
CRXH	ACR	47	4	<1000	160	yes	H	●	●	●	●	●	60	●	Hard binder, multi-usable, tack-free
MCS	ACR	45	7	<1000	130	yes	S	●	●	●	●	●	40	●	Soft and elastic binder, multi-usable
MCH	ACR	50	8	7000	130	no	M	●	●	●	●	●	40	●	Medium soft binder, tack-free
PRS	PU	60	7	<1000	100-160	no	S	●	●	●	●	●	60	●	Soft binder, extremely elastic, highly concentrated
PRH	PU	40	7	<1000	100-160	no	M / H	●	●	●	●	●	60	●	Approved for food contact, excellent abrasion resistant
PRN	PU	60	8	<1000	100-160	no	M / H	●	●	●	●	●	60	●	Tough, flexible binder, very high hydrolytic stability, highly concentrated
PRM	PU	40	7	<1000	100-160	no	H	●	●	●	●	●	60	●	Tough binder, excellent top coat
PRDS	PU	40	8	<1000	100-140	no	S	●	○	○	●	●	40	●	Soft and lightfast binder for outdoor and marine applications
PRDH-N	PU	35	8	<1000	100-140	no	H	●	○	○	●	●	40	●	Hard and lightfast binder for outdoor and marine applications

<sup>(3)</sup> S = soft, M = medium, H = hard

## SPECIALTY COATINGS

Anti-slip	PHYSICAL PROPERTIES						APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) <sup>(4)</sup>	Full surface paste	Full surface foam	Dot Coating	Padding	Wash (°C)	Dry-cleaning	
NS	60	9	23000	130-150	yes	S/M	●	○	●	○	40	●	Excellent anti-slip coating
NSH	64	8,5	22000	160	yes	H	●	○	●	○	40	●	Hard / waterproof dot for outdoor applications
NSFV	37	9	4000	160	yes	S	○	●	○	○	40	●	Highly elastic anti-slip foam

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

Protective	PHYSICAL PROPERTIES						APPLICATION				DURABILITY		SPECIAL CHARACTERISTICS
BEMICOAT	Solid content (%)	pH	Viscosity (mPa.s)	Drying (°C)	Cross-linking	Handle (S, M, H) <sup>(4)</sup>	Full surface paste	Full surface foam	Dot Coating	Padding	Wash (°C)	Dry-cleaning	
PM	52	8	3000	100-160	no	M	●	○	○	○	40	●	High scratch resistant, flame retardant
BCF	45	10	4000	160	yes	M	○	●	○	○	40	●	Flame retardant, high heat resistant coating

<sup>(4)</sup> S = soft, M = medium, H = hard

## REPELLENCY

BEMIGUARD	PHYSICAL PROPERTIES				APPLICATION			REPELLENCY				SPECIAL CHARACTERISTICS
	Solid content (%)	pH	Drying (°C)	Ionogenicity	Till (°C)	Dry-cleaning	Water	Soil	Oil	Petrol	LAD effect	
ECO	20	2	120-180	slightly cationic	40	●	●	●	●	●	○	C6-based technology, ecologically friendly, compatible with BEMIFLAME PF-N
ECO WD	23	3	130-170	slightly cationic	60	●	●	●	●	●	○	C6-based technology, ecologically friendly, wash durable, compatible with BEMIFLAME PES
ECO M	26	3	130-170	slightly cationic	40	●	●	●	●	○	○	C6-based technology, cost-efficient
ECO NN	25	3	150-180	non-ionic	40	●	●	●	●	●	●	C6-based technology, ecologically friendly, LAD effect, compatible with BEMIFLAME PF-N, ND
ECO NN WD	25	3	130-170	non-ionic	60	●	●	●	●	●	●	C6-based technology, ecologically friendly, wash durable, compatible with BEMIFLAME PES, suitable for wool
ECO BDM	30	4	150-170	non-ionic	40	●	●	●	●	○	○	C6-based technology, ecologically friendly, BUNDESMANN approved for several substrates
ECO RT	20	3	>20	cationic	40	●	●	●	●	○	○	C6-based technology, no curing required
ECO MSB	30	4	150-170	slightly cationic	40	●	●	●	●	○	○	Multi-usable, compatible with BEMIFLAME PES
ECO LT	20	4	130-150	slightly cationic	40	●	●	●	●	○	○	C6-based technology, LAD effect
WR	20	6	>70	cationic	40	●	●	○	○	○	○	Fluorine-free, foamable
WRMS	20	4,5	150-170	cationic	40	●	●	○	○	○	○	Fluorine-free, foamable, multi-usable
WRMP	30	2,5	160-180	slightly cationic	40	●	●	○	○	○	○	Fluorine-free, foamable, high performance



## ADDITIVES

Dispersing agents	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIFUSE	Solid content (%)	pH	Viscosity (mPa.s)	Plasticizing effect	
XC	100	5 <sup>(7)</sup>	<1000	no	Multi-functional and extremely cost-efficient
ST	40	8	<1000	no	Efficient stabilizing agent for hotmelt powders

Lubricants	PHYSICAL PROPERTIES				SPECIAL CHARACTERISTICS
BEMIFUSE	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 <sup>(9)</sup>	10000	Polyurethane thickener

Wetting agent	PHYSICAL PROPERTIES			SPECIAL CHARACTERISTICS
BEMIWET	Solid content (%)	pH	Viscosity (mPa.s)	
PGT-N	100	6 <sup>(6)</sup>	<1000	Multi-usable wetting agent

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
NHF	25	7 <sup>(6)</sup>	<1000	Formaldehyde-free crosslinker

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 <sup>(8)</sup>	<1000	Mineral defoamer
SL	55	7	<1000	Silicone defoamer, easily water miscible, highly efficient

Other Solutions	PHYSICAL PROPERTIES			SPECIAL CHARACTERISTICS
	Solid content (%)	pH	Viscosity (mPa.s)	
BEMISORB SR	30	10	<1000	Odour absorber
BEMISTAT M	10	5	<1000	Multi-usable anti-static agent
BEMISTAT SP	50	10	1000	Anti-static agent
BEMISORB UVA	52	8	<1000	UVA & MMS additive

<sup>(6)</sup> 500 g/l in water

<sup>(7)</sup> 40 g/l in water

<sup>(8)</sup> 20 g/l in water

<sup>(9)</sup> 10 g/l in water



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