



We create chemistry

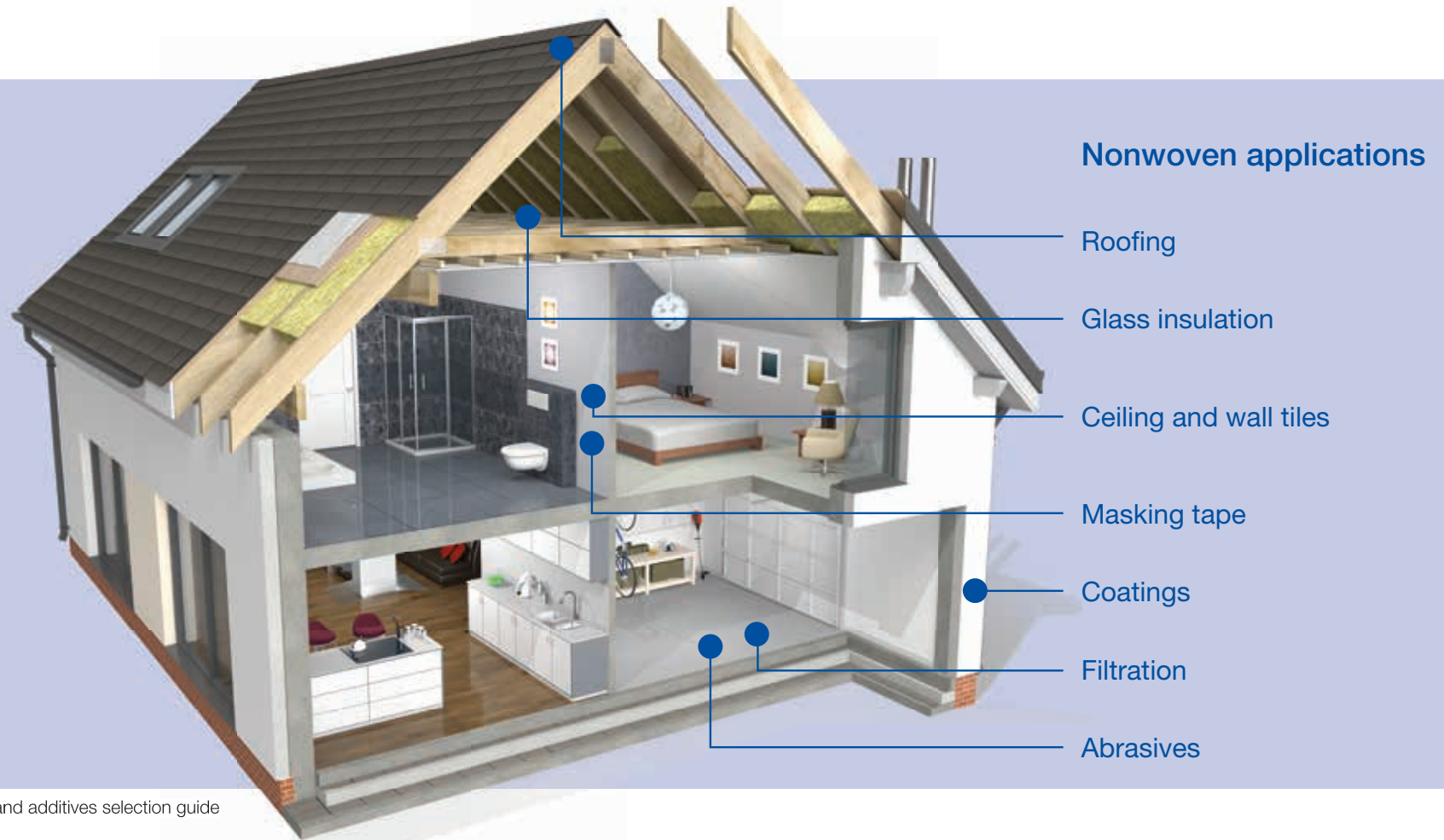
Nonwoven technology for construction



Driving innovation and sustainable design in nonwovens

At BASF, we apply our extensive expertise to develop innovative and sustainable binders, coatings, and additives that help nonwoven products take on evolving requirements in an ever-changing world. We reach beyond chemistry to create robust solutions and enduring customer partnerships.

We offer a broad product portfolio of acrylics, styrene acrylics and styrene butadiene dispersions as well as formulation additives and technical knowledge for safe and environmentally friendly nonwoven composites. Our end-to-end solutions for construction and industrial nonwoven applications are designed to enhance your existing product performance and inspire pioneering nonwovens for the future.



Dispersions for nonwovens

Product name	Polymer type	Tg	Solids %	pH	Viscosity cps	Low VOC	FA free	Self-crosslinking	Description
Abrasives									
ACRODUR® 950L	Acrylic	-	50	3.5	900-2500	Yes	Yes	Yes	Solution polymer for thermoset applications that provides excellent thermal resistance and hydrophobicity. Excellent stiffness and high flex modulus. Formaldehyde-free crosslinking.
ACRODUR DS 3558	Styrene-acrylic	25	50	3.5	300-800	Yes	Yes	Yes	Styrene-acrylic thermosetting polymer that provides a tough-elastic thermoset with excellent flexibility and thermal resistance.
ACRONAL® MS 886 S	Styrene-acrylic	31	50	4	60-180	—	—	Yes	Self-crosslinking styrene acrylic binder that contains acrylonitrile with good adhesion to polyester and glass fibers. High heat resistance. Outstanding thermal dimensional stability.
STYROFAN® 4306	Styrene-butadiene	8	52.5	7	500	—	Yes	—	A styrene-butadiene binder that is frothable, exhibits excellent water resistance and excellent runnability in coating applications. Dries to be very strong.
Ceiling and wall tiles									
ACRODUR 950L	Acrylic	-	50	3.5	900-2500	Yes	Yes	Yes	Solution polymer for thermoset applications that provides excellent thermal resistance and hydrophobicity. Excellent stiffness and high flex modulus. Formaldehyde-free crosslinking.
ACRONAL NX 4612	Acrylic	13	47	8	40-400	—	Yes	Yes	An acrylic binder with leading hydrophobicity and high filler acceptance. Non-APEO. Ideal for use as a hydrophobic binder for glass veil coatings in applications that require significant water resistance.
ACRONAL NX 4787	Styrene-acrylic	23	50	8	200-900	Yes	Yes	—	A styrene-acrylic binder that exhibits superior water resistance and aging stability. Provides high strength and adhesion. Low viscosity. Non-APEO.
Coatings									
ACRONAL NX 3587	Acrylic	-5	55	7.5	200-500	—	—	Yes	All-acrylic water-resistant binder with an excellent balance of high strength and flexibility. Self-crosslinking. Compatible with hot asphalt applications. Non-APEO and non-ammonia.
ACRONAL NX 4612	Acrylic	13	47	8	40-400	—	Yes	Yes	An acrylic binder with leading hydrophobicity and high filler acceptance. Non-APEO. Ideal for use as a hydrophobic binder for glass veil coatings in applications that require significant water resistance.
ACRONAL NX 4787	Styrene-acrylic	23	50	8	200-900	Yes	Yes	—	A styrene-acrylic binder that exhibits superior water resistance and aging stability. Provides high strength and adhesion. Low viscosity. Non-APEO.
ACRONAL 4250	Acrylic	-28	55	8	100-500	—	Yes	Yes	A self-crosslinking all-acrylic binder with a soft hand and excellent durability. Formaldehyde-free.
ACRONAL 4567	Styrene-acrylic	-8	55	8.5	2000	—	Yes	—	Provides flexibility and good hydrophobicity. Ideal for use in hydrophobic coating applications or other applications that require significant water resistance.

Dispersions for nonwovens

Product name	Polymer type	Tg	Solids %	pH	Viscosity cps	Low VOC	FA free	Self-crosslinking	Description
Masking tape (cont.)									
BUTOFAN NS 222	Styrene-butadiene	-26	51	8.8	150-450	—	—	—	Styrene-butadiene dispersion for use with pressure sensitive adhesives. Provides desirable balance of cohesion, tack and superior water resistance. Non-APEO.
BUTOFAN 4000	Styrene-butadiene	-24	51	6.5	50-500	—	—	—	Carboxylated styrene-butadiene dispersion with a good balance of tensile strength and elongation. Excellent heat-age stability, fold durability and tear resistance. Non-APEO and non-ammonia.
STYRONAL® ND 656	Styrene-butadiene	18	50	7	50-350	—	—	—	A styrene-butadiene binder that improves the cohesive strength of laminating adhesives.
Roofing									
ACRODUR 950L	Acrylic	-	50	3.5	900-2500	Yes	Yes	Yes	Solution polymer for thermoset applications that provides excellent thermal resistance and hydrophobicity. Excellent stiffness and high flex modulus. Formaldehyde-free crosslinking.
ACRONAL 4888	Styrene-acrylic	31	49	8	100-600	—	—	Yes	Self-crosslinking styrene-acrylic binder that contains acrylonitrile. Good adhesion to polyester and glass fibers and high heat resistance. Outstanding thermal dimensional stability.
SADUREN® 163	Melamine formaldehyde	NA	70	8.5	500-800	—	—	Yes	Crosslinking agent.
Industrial mat									
ACRONAL 4919 X	Acrylic	29	47.5	8	1400	—	Yes	—	Water-based binder for applications requiring significant water resistance. Formaldehyde-free.
STYROFAN NX 4458	Styrene-butadiene	-9	50	8	< 1000	—	—	—	A styrene-butadiene binder with good strength and water resistance. Designed for beater application processes.
STYRONAL ND 811	Styrene-acrylic	63	50	7.5	50-200	—	—	—	A styrene-acrylic binder providing stiffness and toughness when used to modify binder systems.

Dispersions for nonwovens

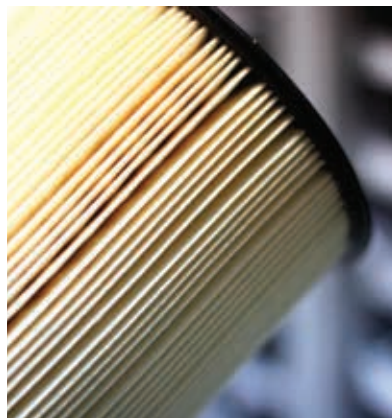
Product name	Polymer type	Tg	Solids %	pH	Viscosity cps	Low VOC	FA free	Self-crosslinking	Description
Filtration									
ACRODUR 950L	Acrylic	-	50	3.5	900-2500	Yes	Yes	Yes	Solution polymer for thermoset applications that provides excellent thermal resistance and hydrophobicity. Excellent stiffness and high flex modulus. Formaldehyde-free crosslinking.
ACRODUR DS 3558	Styrene-acrylic	25	50	3.5	300-800	Yes	Yes	Yes	Styrene-acrylic thermosetting polymer that provides a tough-elastic thermoset with excellent flexibility and thermal resistance.
ACRONAL S 996 S	Styrene-acrylic	46	46	6	30-120	Yes	—	Yes	A self-crosslinking styrene-acrylic binder that shows exceptional resistance to methanol and acid. Good stiffness and heat and solvent resistant.
ACRONAL NX 4569	Styrene-acrylic	4	50	7.5	350-950	—	Yes	—	General purpose binder with excellent balance of properties. Flexible yet strong with good water resistance. Ideal for applications where high filler acceptance is needed.
Insulation									
ACRODUR 950L	Acrylic	-	50	3.5	900-2500	Yes	Yes	Yes	Solution polymer for thermoset applications that provides excellent thermal resistance and hydrophobicity. Excellent stiffness and high flex modulus. Formaldehyde-free crosslinking.
ACRODUR DS 3515	Acrylic	90	50	3.5	300-800	Yes	Yes	Yes	Dispersion polymer for thermoset applications that provides excellent flexibility and heat resistance, and good hydrophobicity. Formaldehyde-free crosslinking.
ACRODUR DS 3530	Acrylic	-	50	3.5	150-300	Yes	Yes	Yes	Low viscosity thermosetting solution polymer providing good heat and water resistance. Excellent stiffness. Formaldehyde-free crosslinking.
ACRONAL 4420 X	Acrylic	-11	50	5	50-200	—	—	Yes	A medium hand all-acrylic self-crosslinking binder with low emulsifier content and excellent hydrophobicity. Superior moisture vapor permeability with low water uptake. Non-APEO.
Masking tape									
ACRONAL 4420 X	Acrylic	-11	50	5	50-200	—	—	Yes	A medium hand all-acrylic self-crosslinking binder with low emulsifier content and excellent hydrophobicity. Superior moisture vapor permeability with low water uptake. Non-APEO.
ACRONAL NX 4569	Styrene-acrylic	4	50	7.5	350-950	—	Yes	—	General purpose binder with excellent balance of properties. Flexible yet strong with good water resistance. Ideal for applications where high filler acceptance is needed.
BUTOFAN® NS 209	Styrene-butadiene	-26	51	8.6	100-450	—	Yes	—	A carboxylated styrene-butadiene binder with a good balance of tensile strength and elongation, as well as excellent barrier properties.
BUTOFAN M NS 211	Styrene-butadiene	-26	51	8.5	100-450	—	—	—	Excellent balance of tensile strength and elongation. Good film forming and barrier properties, as well as excellent chemical and mechanical stability.

Formulation additives for nonwovens

Product name	Polymer type	Solids %	Viscosity cps	VOC %	Description
Dispersing agents					
DISPEX® AA 4040	Ammonium polyacrylate (co-)polymer	45	-	<0.1	Standard dispersing agent for inorganic fillers and pigments. Low polydispersity leading to efficient dispersing properties and liquefying effect.
DISPEX AA 4140	Sodium polyacrylate	43	-	<0.1	Standard dispersing agent for inorganic fillers and pigments. Low polydispersity leading to efficient dispersing properties and liquefying effect.
DISPEX AA 4135	Sodium polyacrylate	35	-	<0.1	Standard dispersing agent for inorganic fillers and pigments.
DISPEX CX 4320	Sodium salt of carboxylic acid copolymer	25	-	<0.1	Excellent dispersing performance; improves gloss. Improves wet-scrub resistance; improves blocking resistance. Excellent ZnO-compatibility.
Defoamers					
FOAMSTAR® SI 2213	Modified polydimethylsiloxane-based defoamers	100	-	<0.1	Very compatible defoamer for clear and low-pigmented paints and coatings and for aqueous flexo inks. Highly effective with excellent compatibility.
FOAMSTAR ST 2412	Star polymer-based defoamers	>98	-	2	Low use level. Excellent persistence. Good choice for styrene-acrylics.
FOAMASTER® MO 2111	Mineral-oil-based defoamers	>91	-	9	Broad-spectrum highly compatible defoamer specifically designed for water-based paints. Excellent efficiency in systems with coarse ingredients.
FOAMASTER MO NXZ	Mineral-oil-based defoamers	>88	-	12	General purpose. Very broad spectrum. Excellent dispersibility.
Rheology modifiers					
RHEOVIS® AS 1125	Non-associative thickener: anionic polyacrylate copolymer (ASE)	25	~17	<0.1	Non-associative pure acrylic thickener. Alkali-swellaable emulsion (ASE). Low-shear thickener. Highly shear thinning. Anti-sagging. High yield point. Lower water uptake.
RHEOVIS AS 1127	Non-associative thickener: anionic polyacrylate copolymer (ASE)	40	~50	<1	Non-associative pure acrylic thickener. Alkali-swellaable emulsion (ASE). Low-shear thickener. Highly shear thinning. Anti-sagging. Reduced syneresis.
RHEOVIS HS 1152	Associative thickener: anionic polyacrylate copolymer, hydrophobically modified (HASE)	40	-	<0.005	Acrylic thickener with associative thickening. Low-shear thickener for paints and plasters. Anti-sagging. Prolongs open time.
RHEOVIS HS 1212	Associative thickener: anionic polyacrylate copolymer, hydrophobically modified (HASE)	40	~5	<0.5	Acrylic thickener with associative thickening. Mid-shear thickener. Improves flow. Excellent efficiency. All-round product which can be used in most paint systems.
RHEOVIS HS 1332	Associative thickener: anionic polyacrylate copolymer, hydrophobically modified (HASE)	40	-	<0.005	Acrylic thickener with associative thickening. High-shear thickener. Newtonian flow behavior. Improved leveling. increases coating build-up / layer thickness.

Formulation additives for nonwovens

Product name	Polymer type	Solids %	Viscosity cps	VOC %	Description
Rheology modifiers (cont.)					
RHEOVIS PU 1214	Associative thickener: hydrophobic modified ethoxylated urethane (HEUR)	40	~3,500	20	Mid-shear thickener. Nearly Newtonian. Excellent balance of high- and low-shear viscosity build.
RHEOVIS PU 1251	Associative thickener: hydrophobic modified ethoxylated urethane (HEUR)	30	~2,800		Mid-shear thickener. Slightly pseudoplastic.
Wetting agents					
HYDROPALAT® WE 3475	Sulfosuccinates	75	-	~6	Highly efficient sulfosuccinate wetting agent. Strong reduction of dynamic surface tension. Standard product used in overprint varnishes.
HYDROPALAT WE 3320	Polymer-based surfactant	~90	-	<0.1	Non-volatile and non-ionic surfactant which is used in water-based coatings as a wetting and dispersing agent for enhanced color development / acceptance and improved substrate wetting. HLB ~14.
HYDROPALAT WE 3323	Star-shaped polymers	>97	-	<3	Non-ionic wetting agent for aqueous formulations with pronounced defoaming characteristics. Excellent anti-cratering additive.
Film forming wetting agents					
LOXANOL® CA 5086	non-ionic surfactant	>97	~60	<3	High performance, zero VOC, coalescing agent for water-based applications.



About BASF's Dispersions and Resins Business

The Dispersions & Resins business of BASF develops, produces, and markets a range of high-quality resins, additives, colorants, and polymer dispersions worldwide. These raw materials are used in formulations for coatings and paints, printing and packaging products, construction coatings, adhesives, cellulose and composites, and paper manufacturing. With a comprehensive product portfolio and extensive knowledge of the industries we serve, our customers benefit from innovative and sustainable solutions to help them advance their formulations through chemistry. For further information about the Dispersions & Resins business in North America, please visit <http://www.basf.us/dpsolutions>.

About BASF

BASF Corporation, headquartered in Florham Park, New Jersey, is the North American affiliate of BASF SE, Ludwigshafen, Germany. BASF has more than 20,000 employees in North America and had sales of around \$20 billion in 2018. For more information about BASF's North American operations, visit www.basf.com.

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.

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