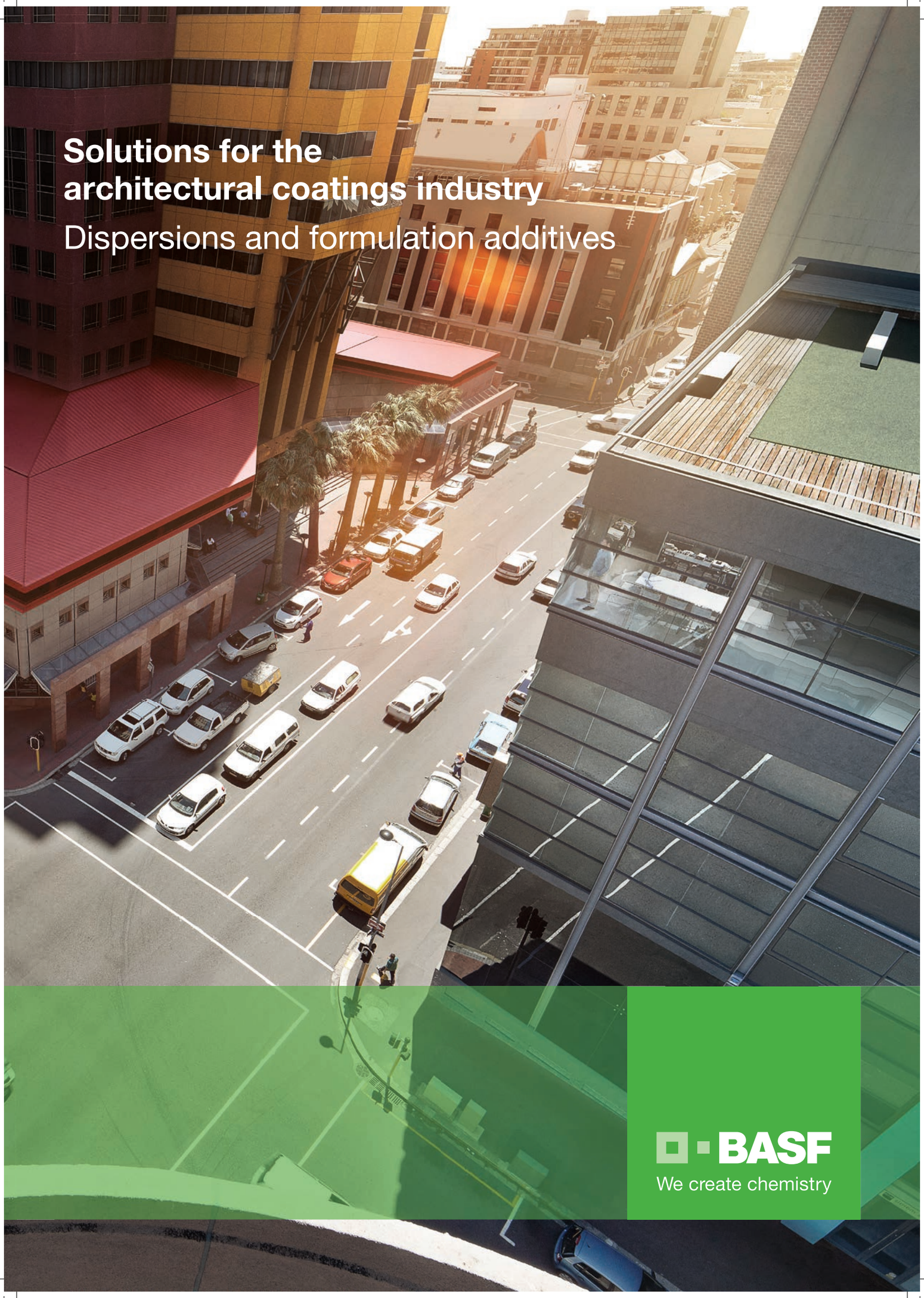

Solutions for the architectural coatings industry

Dispersions and formulation additives

BASF
We create chemistry

Styrene acrylics

Product name	Data							Detailed information (advantages)
	solids content (%) +/- 1	pH value	viscosity (mPa·s) DIN EN ISO 3219 (23°C, 100 1/s)	particle size*4 (µm)	MFFT*4 (C°)	stress at break at 23°C*4) (N/mm2)	elongation at break at 23°C*4) (%)	
Styrene acrylics								
Acronal® S 790 / Acronal® TS 790	50	7.5 – 9.0	700 – 1,500	0.1	20	10	400	broad formulation latitude, exceptional cost performance, APEO-free version of Acronal® 290 D
Acronal® 290 D/ Acronal® T 290 D	50	7.5 – 9.0	700 – 1,500	0.1	20	7	500	broad formulation latitude, exceptional cost performance
Acronal® 6292	50	6.5 – 7.5	20 – 100	0.17	5			low odor, low VOC, ammonia-free, APEO-free, outstanding wet scrub resistance
Acronal® S 559	50	6.0 – 7.5	70 – 400	0.15	3	3	800	low odor, low VOC, broad formulation latitude, outstanding waterglass compatibility, ammonia-free, APEO-free
Acronal® S 562 / Acronal® S 562 T	50	7.0 – 8.5	400 – 1,200	0.12	< 1	2	> 1,100	excellent cost performance, good flexibility down to -5°C (Tg -8°C), good dirt pick-up resistance, (UV-crosslinking), low water sensitivity, APEO-free
Acronal® ECO 6716 / Acronal® ECO 6716 T	50	6.5 – 8.5	300 – 1,000	0.15	22	7	500	broad formulation latitude, ammonia-free, APEO-free
Acronal® PLUS 6727	45	9.0 – 11.0	20 – 100	0.1	7	12	280	excellent tannin and nicotine blocking; APEO-free state-of-the-art primer for exterior wood coating solutions for Deco and Joinery
Acronal® S 813	50	7.6 – 8.2	100 – 250[2]	0.1	28	5	450	excellent wet scrub resistance and superior adhesion properties on mineral subtstrates (also ceramic tiles), with siloxane-functionality, very good water resistance, APEO-free
Acronal® ECO 6258	50	7.5 – 8.5	20 – 200	0.15	3	3	1000	low odor, low VOC, broad formulation latitude, good dirt pick-up resistance (UV-crosslinking), ammonia-free, APEO-free

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.

Detailed application area															Applications	Sustainability Driver*
exterior paints	textured finishes	concrete protection coatings	exterior insulation and finishing systems EIFS	floor coatings	interior paints	flexible paints	wood paints	wood stains	gloss and satin latex paints	primers	tinters and deep-tone paints	silicate emulsion paints	corrosion protection	joinery coatings		
■	■	■	■		■		□		□	□		□	□			■
■	■	■	■		■		□		□	□		□	□			
■	■		□		■					□	■	■				
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■	■	■	■		■		□		□	□		□	□			
										■						
■	■	■	■		■					□		□				
■	■		□		□					■		■				■

■ very suitable □ suitable

interior applications · exterior/façade coatings · silicate/silicone/stucco · wood coatings

RC technology

Product name	Data							Detailed information (advantages)
	solids content (%) +/- 1	pH value	viscosity (mPa·s) DIN EN ISO 3219 (23°C, 100 1/s)	particle size*4 (µm)	MFFT*4 (C°)	stress at break at 23°C*4) (N/mm2)	elongation at break at 23°C*4) (%)	
RC technology								
Acronal® EDGE 6283	42.5	7.5 – 9.0	100 – 600	0.06	< 3	10	100	excellent solution for transparent and opaque systems; superior durability on wood combined with an outstanding blocking resistance at low coalescent demand; high elasticity at low temperatures, very good adhesion; good water barrier properties without compromising on breathability, APEO-free
Joncryl® 2560	48	7.9	600	0.08	< 5	5	200	broad formulation latitude, excellent elasticity and outdoor durability, high gloss level, blocking resistance, reduces coalescent demand and mud-cracking, APEO-free
Joncryl® 8280	46	8.3	200	0.07	20	9	110	broad formulation latitude, improves gloss level, very good durability on wood, APEO-free
Joncryl® 8284	40	9.0	120	0.07	< 1	7	200	excellent tannin blocking, very good interaction with associative thickeners, APEO-free
Joncryl® 8383	40	8.1	80	0.07	16	15	80	broad formulation latitude, excellent balance of surface hardness, blocking resistance and durability on wood, superior wet adhesion, very good water and blushing resistance, ease of defoaming, APEO-free
Joncryl® 8387	44	7.5 – 8.5	200 – 800	0.08	< 3	13	90	broad formulation latitude, exceptional blocking resistance and wet adhesion, outstanding water and blushing resistance, very good durability on wood, ease of defoaming, APEO-free

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.

Detailed application area															Applications	Sustainability Driver*
exterior paints	textured finishes	concrete protection coatings	exterior insulation and finishing systems EIFS	floor coatings	interior paints	flexible paints	wood paints	wood stains	gloss and satin latex paints	primers	tinters and deep-tone paints	silicate emulsion paints	corrosion protection	joinery coatings		
							■	■	□	□				■		■
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□		□					■	■	■	■			□	□		
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							■	■	■	■				■		■

■ very suitable □ suitable

interior applications · exterior/façade coatings · wood coatings

Pure acrylics and opaque polymers

Product name	Data							Detailed information (advantages)
	solids content (%) +/- 1	pH value	viscosity (mPa·s) DIN EN ISO 3219 (23°C, 100 1/s)	particle size*[4] (µm)	MFFT*[4] (C°)	stress at break at 23°C*[4] (N/mm2)	elongation at break at 23°C*[4] (%)	
Pure acrylics								
Acronal® EDGE 6295	49	7.5 – 8.5	50 – 400	0.13	22	15	200	acrylic binder leading to outstanding color retention and excellent exterior durability; very good hydrophobicity, broad formulation latitude, APEO-free
Acronal® A 684	50	7.5 – 9.0	100 – 400	0.1	17	12	250	broad formulation latitude, excellent wet adhesion properties, APEO-free
Acronal® A 754 / Acronal® TA 754	48	7.5 – 8.5	200 – 900	0.1	17	12	200	outstanding blushing resistance, excellent hydrophobicity, for colored aggregates, APEO-free
Acronal® PLUS 6257	60	7.0 – 8.5	40 – 200[2]	0.25	< 1	0.6	1,500	outstanding elasticity down to -20°C, good dirt pick-up resistance (double crosslinking), excellent water protection at good water vapor permeability, ammonia-free, APEO-free
Acronal® DS 6262	50	7.5 – 8.5	30 – 200	0.2	14	16	100	superior abrasion resistance, excellent exterior durability, low water uptake and water whitening, very good resistance against chemicals, fuel and oil, self-crosslinking, APEO-free
Acronal® DS 6266	48	7.5 – 8.5	80 – 500	0.1	14	10	350	superior weathering resistance, excellent blushing resistance, tack-free films, also for colored aggregates, APEO-free
Acronal® ECO 6270	50	7.0 – 8.5	50 – 500	0.1	2	5	650	low odor, low VOC, excellent weathering resistance, high pigment binding power, for low emission paints, ammonia-free, APEO-free
Acronal® LR 9014 / Acronal® TX 9014	45	7.5 – 8.5	100 – 400	0.08	< 3	8.5	110	broad formulation latitude, very good blocking resistance, very good durability, very good wet adhesion, excellent blushing and alkaline resistance, excellent stain resistance, APEO-free
Luhydran® A 848 S	44.5	6.5 – 7.5	150 – 250	0.07	39	-	-	outstanding surface hardness, excellent resistance to water and blushing, superior resistance to household chemicals, self-crosslinking, APEO-free
Opaque polymers								
AQACell® 6299	30	7.5 – 9.0	10 – 500	-	> 80	-	-	high scattering organic pigment, broad formulation attitude, increased TiO_2 efficiency, low odor, ammonia-free, APEO-free

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.

Detailed application area															Applications	Sustainability Driver*
exterior paints	textured finishes	concrete protection coatings	exterior insulation and finishing systems EIFS	floor coatings	interior paints	flexible paints	wood paints	wood stains	gloss and satin latex paints	primers	tinters and deep-tone paints	silicate emulsion paints	corrosion protection	joinery coatings		
■	■															■
■	□		□				■	■	□	□						
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■ very suitable □ suitable

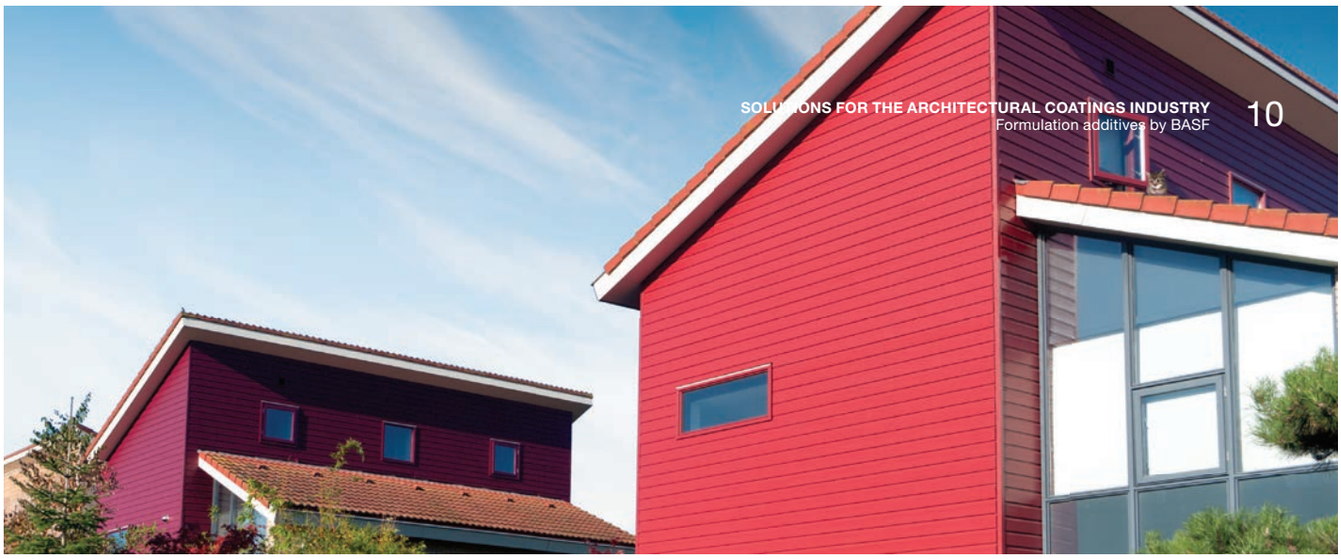
interior applications exterior/façade coatings wood coatings

Dispersing agents

Dispersing agents are used to wet and stabilize pigments and other particles within paints and coatings. For formulators, they represent an essential component as they provide color strength, gloss, viscosity stability and prevent sedimentation of particles.

Product name	Description	Solids (%)	Amine number (mg KOH/g)	Acid value (mg KOH/g)	VOC content (%)	Recommended for low-VOC systems*	high PVC paints	matt / interior
Anionic dispersing agents based on polyacrylic acid								
Dispex® AA 4040	ammonium polyacrylate polymer	40	-	-	< 0.1	●	□	□
Dispex® AA 4140	sodium polyacrylate polymer	40	-	-	< 0.1	●	■	■
Dispex® CX 4231	ammonium polyacrylate (co-)polymer	30	-	-	≤ 1	●		□
Dispex® CX 4320	sodium salt of carboxylic acid copolymer	25	-	-	< 0.1	●	■	■
Dispex® CX 4345	sodium salt of carboxylic acid copolymer	45	-	-	< 0.1	●	■	
Low-molecular-weight dispersing agents mainly designed for water-based systems, surfactant-like types								
Dispex® Ultra FA 4404	chelating agent	50	-	-	< 1	●	□	■
Dispex® Ultra FA 4416	mixture of surfactants	75	-	-	< 2	●		
Dispex® Ultra FA 4420	fatty-acid-modified emulsifier (FAME)	100	35	22	< 1	●		
Dispex® Ultra FA 4425	fatty-acid-modified emulsifier (FAME)	100	47	46	< 1	●		
Dispex® Ultra FA 4480	modified fatty alcohol ethoxylate	80	-	-	< 0.1	●		
Dispex® Ultra FA 4483	phosphoric acid ester	30	-	25	< 0.1	●	□	■
High molecular weight dispersing agents								
Dispex® Ultra PX 4575	acrylic block polymer made by controlled free radical polymerisation (CFRP)	40	32	-	< 1	●		

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.



silk / semigloss	gloss	wood paints and stains	exterior and elastic paints, plasters	colorants	low-VOC	Recommended for: water-based systems	Recommended for: solvent-based systems	Features and benefits
■	□	□	■		□	●		standard dispersing agent for inorganic fillers and pigments; low polydispersity leading to most efficient dispersing properties and liquefying effect
■	■	■	■		■	●		standard dispersing agent for inorganic fillers and pigments; low polydispersity leading to most efficient dispersing properties and liquefying effect
■	■	■	■			●		for inorganic pigments and extenders, improves adhesion and gloss, lowers snail-trail tendency of exterior paints; leads to highest contact angles (e.g. for water-repellent effect paints)
■	■	■	■		■	●		excellent dispersing perfomance, improves gloss, improves wet-scrub resistance, improves blocking resistance, excellent ZnO-compatibility
						●		leads to highest wet-scrub resistance, hydrophobic character
■	■	■	■	□		●		anionic dispersing agent; excellent liquefying effect in inorganic pigment slurry formulations
■	■	■			■	●		wetting and dispersing agent for aqueous formulations; suitable for organic and inorganic pigments and pigment concentrates
				■		●	●	dispersing agent for inorganic fillers and pigments; also suitable as codispersing agent with high-molecular-weight dispersing agents; will improve compatibility and color acceptance of universal colorants in base paints
				■		●	●	dispersing agent for universal decorative colorants for tinting systems; makes colorants with excellent compatibility and stability
				■		●		universal, non-ionic wetting and dispersing agent; powerful alternative to APEOs; improves gloss development, color intensity and color acceptance
■	■	□	■	■	■	●		universal, anionic wetting and dispersing agent; especially suitable for inorganic pigment concentrates
	■		■	■	■	●		VOC-free dispersing agent for water-based systems with benchmark performance in inorganic pigments; excellent overall performance for organic pigments; broad compatibility towards different resin systems; designed for colorants but well suited for grinds into primers, gloss and semigloss paints

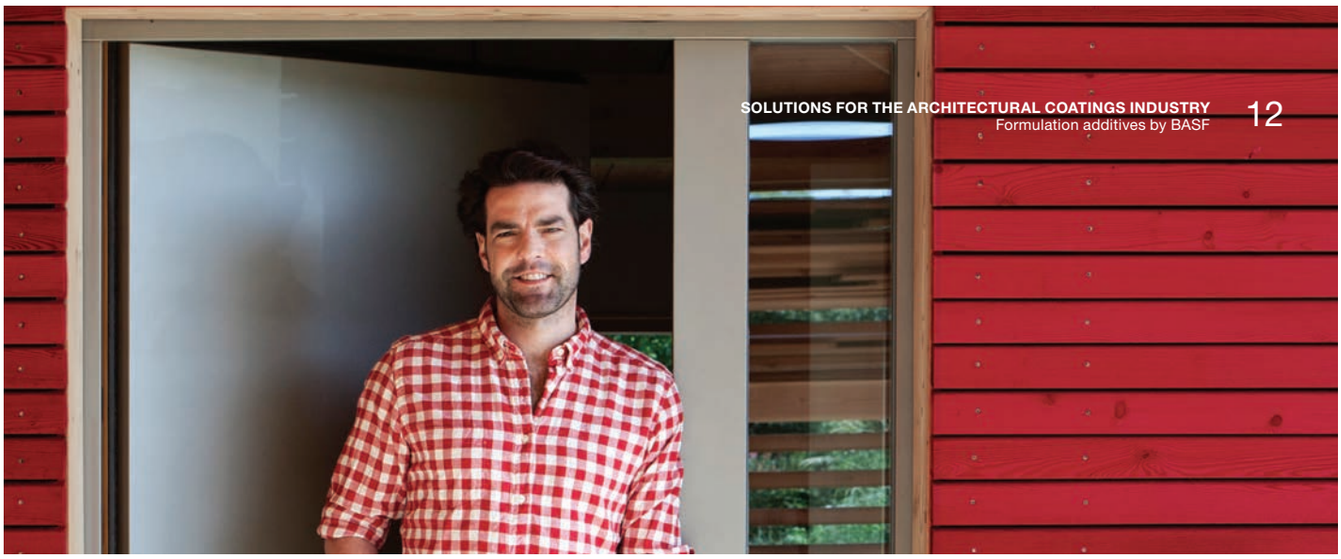
■ very suitable □ suitable

Defoamers

Broad selection of defoamer technologies including products based on mineral or native oils as well as specialty-emulsion defoamers, organo-silicone-based and star-polymer defoamers. Focus on establishing a perfect balance between excellent foam suppression, high compatibility, long-term efficiency, easy handling and environmental compliance in form of low VOC, low S-VOC and low odor solutions.

Product name	Description	Solids (%)	Incorporation	VOC content (%)	Recommended for low-VOC systems*	high PVC paints	matt / interior
Defoamers designed to be used in water-based systems							
Foamaster® MO 2134	mineral oil-based defoamers	100	grinding stage / let-down	< 0.1	●	■	■
Foamaster® MO 2150	mineral oil-based defoamers	100	grinding stage / let-down	< 0.1	●	■	■
Foamaster® MO NDW	mineral oil-based defoamers	100	at any stage of the production process	< 0.1	●	■	■
Foamaster® MO NXZ	mineral oil-based defoamers	100	at any stage of the production process	< 0.1	●	■	■
Foamaster® NO 2306	native oil-based defoamers	100	at any stage of the production process	< 0.5	●		■
Foamaster® NO 2335	native oil-based defoamers	100	grinding stage / let-down	< 0.1	●	■	■
Foamaster® WO 2323	white oil-based defoamers	100	grinding stage / let-down	< 0.1	●		■
FoamStar® ED 2521	emulsion defoamers	~ 20	grinding stage / let-down	< 0.1	●	■	■
FoamStar® ED 2522	emulsion defoamers	~ 20	at any stage of the production process	< 0.1	●		□
FoamStar® ED 2523	emulsion defoamers	27	grinding stage / let-down	< 0.1	●	■	■
FoamStar® SI 2210	modified polydimethylsiloxane-based defoamers	100	at any stage of the production process	< 0.5	●		□
FoamStar® SI 2216	modified polydimethylsiloxane-based defoamers	100	grinding stage / let-down	< 0.5	●		
FoamStar® SI 2250	modified polydimethylsiloxane-based defoamers	100	grinding stage / final production	< 1	●		
FoamStar® ST 2438	star polymer-based defoamers	100	grinding stage / let-down	< 0.5	●		□

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.



Recommended for								Features and benefits
silk / semigloss	gloss	wood paints and stains	exterior and elastic paints, plasters	colorants	low-VOC	water-based systems	solvent-based systems	
■	□	□	■		□	●		universal defoamer for aqueous emulsion-based coatings and plasters with outstanding long-term efficiency
□			■		■	●		very efficient universal defoamer for aqueous emulsion-based coatings and plasters; specifically designed for flat aqueous coatings; exceptional product stability
□			■		□	●		universal defoamer for aqueous emulsion-based coatings and plasters; specifically designed for flat aqueous paints and coatings; high compatibility – does not cause fish eyes
□			■		□	●		universal defoamer for aqueous emulsion-based coatings and plasters; specifically designed for flat aqueous coatings and adhesives; good compatibility – does not cause fish eyes
■	□	■	■		■	●		universal defoamer free from mineral oil and silicone oil; effectively removes micro-foam
□		□	■		■	●		universal, highly efficient defoamer based on renewable raw materials for emulsion paints; excellent defoamer format to satin-finish aqueous coatings; extremely low SVOC content
■	□	□	■		■	●		effective defoamer specifically designed for emulsion paints
■			■		■	●		excellent defoamer emulsion for all flat to semigloss aqueous coatings; easy to incorporate; good foam suppression during grinding as well as during application; retains antifoam efficiency even during extended storage; extremely low SVOC content
■	■	■	■		■	●		high-performance, ultra-low-SVOC silicone emulsion defoamer for premium water-based paints, clear coats and inks; excellent storage stability; extremely low SVOC content
■	□	□	■		□	●		ultra-low SVOC, emulsion defoamer for medium to high PVC architectural coatings
□	■	■	■		■	●		100 %-active-content defoamer for non-pigmented and low-pigmented aqueous coatings, printing inks, adhesives and UV-curable systems; provides a strong spontaneous defoaming effect; outstanding long-term defoaming persistency
□	■		□	■	■	●		highly effective defoamer for aqueous pigment concentrates and systems with high surfactant content
■				■	■	●		water-based coatings and pigment concentrates where high-shear processing or application exists; most effective in the range
□	■	■	■		■	●		silicone-based defoamer for high-quality water-based paints, delivering excellent long-term persistency and foam knock down

■ very suitable □ suitable

Rheology modifiers

Broad portfolio of synthetic rheology modifiers, including non-ionic associative (HEUR/HMPE), anionic associative (HASE) and non-associative thickener (ASE) technologies. Focus on water-based systems with highly efficient products that provide additional functionality such as wetting properties and health or environmental aspects (low VOC, low odor, free of APEO and heavy metals).

New product name	Description	Solids (%)	Viscosity (mPa.s)	VOC content (%)	Recommended for low-VOC systems*	Tin-free	high PVC paints
Rheology modifiers designed to be used in water-based systems							
Rheovis® AS 1130	non-associative thickener: anionic polyacrylate copolymer (ASE)	30	~ 5	< 0.5		●	■
Rheovis® HS 1162	associative thickener: anionic poly-acrylate copolymer, hydrophobically modified (HASE)	35	< 50	< 0.5		●	■
Rheovis® HS 1169	associative thickener: anionic poly-acrylate copolymer, hydrophobically modified (HASE)	30	< 50	< 0.1	●	●	□
Rheovis® HS 1152	associative thickener: anionic poly-acrylate copolymer, hydrophobically modified (HASE)	40	< 50	< 0.5			□
Rheovis® HS 1212	associative thickener: anionic poly-acrylate copolymer, hydrophobically modified (HASE)	40	~ 5	< 0.5		●	■
Rheovis® PE 1330	associative thickener: hydrophobic modified polyether (HMPE)	30	~ 4,500	< 0.1	●	●	■
Rheovis® PU 1190	associative thickener: hydrophobic modified ethoxylated urethane (HEUR)	34	~ 30,000	< 1	●	●	■
Rheovis® PU 1291	associative thickener: hydrophobic modified ethoxylated urethane (HEUR)	45	~ 3,000	< 0.1	●	●	■
Rheovis® PU 1331	associative thickener: hydrophobic modified ethoxylated urethane (HEUR)	18	~ 4,500	< 0.1	●	●	■

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.

matt / interior	silk / semigloss	gloss	wood paints and stains	exterior and elastic paints, plasters	colorants	low-VOC	Recommended for: water-based systems	Recommended for: solvent-based systems	Features and benefits
□			□	□		■	●		non-associative pure acrylic thickener; highly efficient low-shear thickener; high shear thinning, anti-sagging and anti-settling; used in pigment and filler slurries, but also highly successful in industrial and automotive formulations for spray applications
□	□	□	■	□		■	●		acrylic thickener with associative and non-associative thickening; thixotropic flow behavior; low water uptake; no impact on wet adhesion even after long water contact
■	■		■	■		■	●		acrylic thickener with associative thickening; low-shear thickener; spray applications; less water uptake; elongation of open time
■	■		■	■		■	●		acrylic thickener with associative thickening; low-shear thickener; spray applications; less water uptake; elongation of open time
■	■		■	■		■	●		acrylic thickener with associative thickening; mid-shear thickener; improves flow; excellent efficiency; allround product which can be used in most paint systems
■	■	■	■	■		■	●		excellent high-shear thickener; imparts excellent flow
■	■	■	■	■		■	●		strong low-shear thickener; strong pseudoplasticity
■	■	■	■	■		■	●		next-generation VOC-free mid-shear rheology modifier with excellent ICI thickening and easy handling
■	■	■	■	■		■	●		next-generation high-shear thickener; ultra efficient; best in class ICI performance

■ very suitable □ suitable

Wetting agents and surface modifiers

Wetting agents and surface modifiers provide a formulation with adequate wetting properties, enhance different component compatibility and/or improve the appearance of a coating surface.

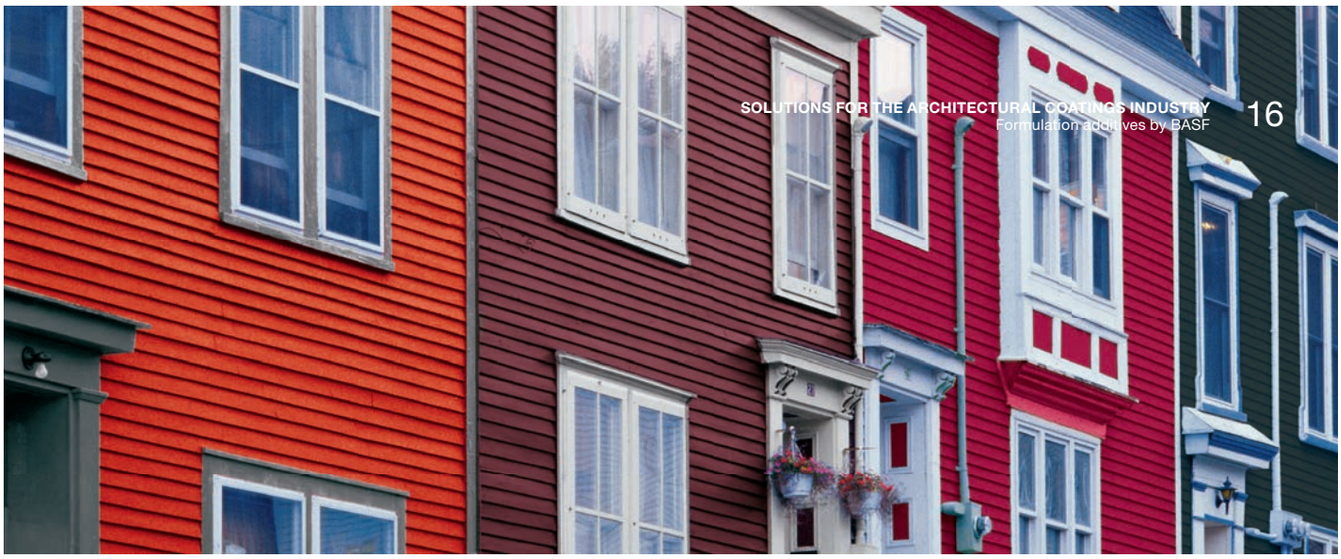
Product name	Description	Solids (%)	VOC content (%)	Recommended for low-VOC systems*	high PVC paints	matt / interior	silk / semigloss	gloss
Rheology modifiers designed to be used in water-based systems								
Hydropalat® WE 3221	blend of organically modified polysiloxane (silicone surfactant) with dipropylene glycol monomethylether	52					■	■

Film-forming agents

Film-forming agents are used to support the film-forming process of a paint or coating. Within this product group, BASF offers a high-performance coalescing agent and a complete range of open-time prolongers based on renewable raw materials.

Product name	Description	Solids (%)	Viscosity (mPa.s)	VOC content (%)	Recommended for low-VOC systems*	high PVC paints	matt / interior	silk / semigloss
Coalescents								
Loxanol® CA 5308	dicarbonic acid-diisobutyl ester	> 99	~ 6	< 0.1	●		□	
Open-time prolongers								
Loxanol® OT 5840	aqueous dispersion of oleochemical compounds	20	600	< 0.1	●			
Loxanol® OT 5853	aqueous dispersion of oleochemical compounds	30	~ 1,000	< 0.1	●			

* The respective product has been evaluated with BASF's Sustainable Solution Steering Method and contributes substantially to sustainability drivers in the value chain.



wood paints and stains	exterior and elastic paints, plasters	colorants	low-VOC	Recommended for: water-based systems	Recommended for: solvent-based systems	Features and benefits
■	□			●		silicone surfactant to improve substrate wetting in aqueous systems

gloss	wood paints and stains	exterior and elastic paints, plasters	colorants	low-VOC	Recommended for: water-based systems	Recommended for: solvent-based systems	Features and benefits
	□	□		■	●		outstanding coalescing efficiency; improves wet-scrub resistance; mild odor
		■			●		open-time prolonger in liquid form; prevents/reduces cracking in resin-based plasters
		■		■	●		higly efficient open-time prolonger; prevents/reduces cracking in resin-based plasters; improved storage stability

■ very suitable □ suitable

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