

MÜNZING 
CREATING ADDITIVE VALUE

N O R T H A M E R I C A

ADDITIVES FOR WATER-BASED SYSTEMS: COATINGS, INKS, ADHESIVES AND BUILDING PRODUCTS





Defoamers:

AGITAN® and DEE FO®

- Broad range of chemistries with tailored compatibility and persistence
- Balance of foam control and wetting performance
- Suitable for all water-based applications

Wetting and Leveling Agents:

METOLAT® and EDAPLAN® LA

- Wide range of products to tailor compatibility and foam tendency
- Designed to control surface tension and improve substrate and pigment wetting
- Improve film leveling and overall film quality

Pigment Dispersants:

METOLAT® and EDAPLAN®

- Polymeric dispersants for a wide variety of pigments and fillers
- Designed to prevent pigment sedimentation and flocculation, improve color strength and stabilize viscosity

Rheology Modifiers:

TAFIGEL®

- HEUR & HASE associative thickeners for water-based applications
- Range of products provide Newtonian or pseudoplastic behavior
- Tailored product selection to optimize sag, leveling, spatter, sedimentation and flow

Additives for Building and Construction:

AGITAN® P

- Powder additives to control air content in cementitious systems

METOLAT® P

- Powder additives for cementitious systems to reduce shrinkage during drying and curing and to improve dispersion of particles and fibers



Architectural Coatings

Time-tested, cost-effective products that eliminate undesired foam during manufacturing and application.

		DEE FO® 2020A	DEE FO® 3010A	DEE FO® 97-3	DEE FO® 215	AGITAN® 282	AGITAN® 5091	DEE FO® 1015	AGITAN® 350	DEE FO® PI-35	AGITAN® 784	DEE FO® PI-320	AGITAN® 760	AGITAN® 786N
Defoamer Type		M	M	M	M	M	M, POA	M, POA	POA	3D, E	3D, E	3D, POA	OMS, POA	OMS, POA
Defoamer Solids		WA	WA, HS	MS	WA	HS	WA, HS	WA, HS	WA, HS	HS	HS			HS
Application	Emulsion Paints (matte/satin/eggshell)	●	●		●	○	●	●						
	Emulsion Paints (high gloss)									○	●	○	○	●
	Stucco/Textured/Plasters	○	○	●	○	○	●	●	●					
	Traffic Paint	○	●	●		○	●	○						
	Elastomeric Roof Coating	○		○	○		●	●	●			○		
	Grind Phase TiO ₂ /Fillers	●	●	○			●	●	●		●	○		●
Ease of Incorporation/Emulsifiability		L	L	H	M	H	L	L	L	M	M	M	L	M
Persistence to Shear		M	M	M	M	M	M	H	H	H	H	M	H	H

● = Primary Recommendation ○ = Secondary Recommendation L = Low M = Medium H = High

LEGEND - Defoamer Type and Solids:

E: Aqueous Emulsion; M: Mineral Oil; POA: Polyoxalkylene Technology; 3D: 3-Dimensional Polysiloxane; OMS: Organo-Modified Siloxane; WA: Wax; HS: Hydrophobic Silica; MS: Metallic Stearate



Industrial Coatings

A well-formulated coating is enhanced by the right defoamer – one that maintains gloss, clarity and coating integrity.

		DEE FO® 215	DEE FO® 3010E/50	AGITAN® 282	AGITAN® 350	DEE FO® PI-35	AGITAN® 784	DEE FO® PI-320	DEE FO® 718	AGITAN® 760	AGITAN® 786N	AGITAN® 155	AGITAN® 158
Defoamer Type		M	M	M	POA	3D, E	3D, E	3D, POA	OMS	OMS, POA	OMS, POA	OMS, E	OMS, E
Defoamer Solids		WA	WA, HS	HS	WA, HS	HS	HS		HS		HS	HS	HS
Application	Metal Primers	●	●		●		○			○	○	○	
	Metal Top Coats					○	○	●	○	●		○	●
	Anti-Corrosion Coatings		○	○	○	●	○			●	●	●	
	2K PU and Epoxy Coatings				○	○	○	○	●	●		●	
	Water-Based Alkyds	○				○	●	●					●
	Water-Based UV Coatings		○	○	○					●	○		
	Automotive Fillers	●	●		○		○			○		○	
	Automotive Basecoats	●	●	●	○	○				○	●	○	
	Automotive Clearcoats					○	●	●	○	●		○	●
	Can and Coil Coatings				○					●			○
Ease of Incorporation/Emulsifiability		M	M	H	L	M	M	M	M	L	M	H	H
Persistence to Shear		M	M	M	H	H	H	M	M	H	H	M	M

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Wood Coatings

A wide range of chemistries to meet the demands of a diverse industry.

		DEE FO® 215	AGITAN® 282	DEE FO® 3010E/50	DEE FO® 97-3	AGITAN® 351	AGITAN® 784	DEE FO® PI-320	AGITAN® 760	AGITAN® 786N	AGITAN® 155	AGITAN® 158
Defoamer Type		M	M	M	M	POA	3D, E	3D, POA	OMS, POA	OMS, POA	OMS, E	OMS, E
Defoamer Solids		WA	HS	WA, HS	MS	WA, HS	HS			HS	HS	HS
Application	High Gloss Enamels	○	○				○	●	●	○	○	●
	Varnish/Clear Coating						○	●	●		○	●
	Wood Stain	○		○		○	●			●	○	
	Wood Protective Coating	●	●	●	●		○		○		○	
	2K Polyurethane Coatings					○	○	●	○		○	●
	Water-Based UV Coatings		○	○		○			●			
Ease of Incorporation/Emulsifiability		M	H	M	H	M	M	M	L	H	H	H
Persistence to Shear		M	M	M	M	M	H	M	H	H	M	M

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 OMS: Organo-Modified Siloxane; WA: Wax; HS: Hydrophobic Silica; MS: Metallic Stearate



Adhesives

Air bubbles reduce the strength of your bond. Defoamers provide the opportunity to make a good product even better.

		DEE FO® 215	AGITAN® 5068	DEE FO® 2020E/50	DEE FO® 3010E/50	AGITAN® 282	DEE FO® 97-3	DEE FO® PI-12	DEE FO® 1015	AGITAN® 351	AGITAN® 352	AGITAN® 784	AGITAN® 786N
Defoamer Type		M	M	M	M	M	M	M, POA	M, POA	POA	VEG, POA	3D, E	OMS, POA
Defoamer Solids		WA	WA	WA	WA, HS	HS	MS	WA, HS	WA, HS	WA, HS	HS	HS	HS
Application	Pressure Sensitive Adhesive	●	●	●	○	○	○	●					
	Laminating/Clear Coat/Release Liner	●	○	●		●		○				●	●
	Envelope/Label	○	●	●			○	●		○			
	Packaging	●	●	●	○		○	○					○
	Wood Glue	●	○		○	○	●	○		○			●
	Construction	○	●	●		●	●		●	○		○	
	Natural/Neoprene/Nitrile Latex	○	●				●			●		●	○
	Acrylic/EVA/VA Latex	●	●	○	○	●		●		○	●	○	
	Gelatin/Casein/Starch	●	○			○					●	●	○
	Polyvinyl Alcohol	○	○		○	●				●	●		
High Viscosity	●	●	●						●	●	○	○	
Ease of Incorporation/Emulsifiability		M	M	M	M	H	H	H	L	M	M	M	M
Persistence to Shear		M	M	M	M	M	M	M	H	H	M	H	H
FDA 175.105		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FDA 176.210				✓	✓				✓	✓	✓		

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 E: Aqueous Emulsion; M: Mineral Oil; POA: Polyoxalkylene Technology; 3D: 3-Dimensional Polysiloxane;
 OMS: Organo-Modified Siloxane; WA: Wax; HS: Hydrophobic Silica; MS: Metallic Stearate; VEG = Vegetable Oil



Printing Industry

Achieve the delicate balance between compatibility and foam control to reduce film defects.

		DEE FO® 215	DEE FO® 300F	DEE FO® 3010E/50	DEE FO® PI-12	DEE FO® 1537A	AGITAN® 351	DEE FO® PI-547	DEE FO® PI-35	AGITAN® 784	DEE FO® PI-320	DEE FO® PG-2	AGITAN® 155	AGITAN® 150	AGITAN® 158	AGITAN® 786N	AGITAN® 760	DEE FO® 725E
Defoamer Type		M	WO	M	M, POA	M, E	POA	POA	3D, E	3D, E	3D, POA	3D, POA	OMS, E	OMS, E	OMS, E	OMS, POA	OMS, POA	OMS
Defoamer Solids		WA	WA	WA, HS	WA, HS	WA, HS	WA, HS	HS	HS	HS			HS	HS	HS	HS		HS
Application	Corrugated Paper	●	●	○	●		●	●	○	○			●	○		○		
	Coated Paper	○	○		○				●	●	●			●	○	○	●	●
	Film & Foil	●	●	○	○			○	○	●	●	○	○	●	○	●	●	●
	Overprint Varnish	○	○		○			○	○	○	○			○	○	●	●	●
	Metallic Ink	○	○				●	○		○		●	○	○			●	●
	Ink Jet															●		○
	Screen Ink	●		○			●		○	○				○	○	●		○
	Fountain Solution										○	●	●	○	●			
	Press-Side	○		○		●								●	○			○
Ease of Incorporation/Emulsifiability		M	H	M	H	H	M	M	M	M	M	L	H	H	H	M	L	H
Persistence to Shear		M	M	M	M	L	H	H	H	H	M	H	M	M	M	H	H	M
FDA 175.105		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓
FDA 175.300			✓				✓		✓*	✓*							✓	
FDA 176.170		✓	✓	✓	✓	✓	✓	✓	✓*	✓*								
FDA 176.180		✓	✓	✓	✓	✓	✓	✓	✓*	✓*								

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LEGEND - Defoamer Type and Solids:
 E: Aqueous Emulsion; M: Mineral Oil; WO: White Oil; POA: Polyoxalkylene Technology; 3D: 3-Dimensional Polysiloxane; OMS: Organo-Modified Siloxane; WA: Wax; HS: Hydrophobic Silica; ✓*: Limited

Grinding Pigments

Long-term defoamer persistence allows efficient and effective production.

		DEE FO® 215	DEE FO® 3010A	DEE FO® 1015	AGITAN® 350	AGITAN® 351	DEE FO® PI-35	AGITAN® 5232	AGITAN® 5292	AGITAN® 5230	AGITAN® 786N	AGITAN® 760
Defoamer Type		M	M	M, POA	POA	POA	3D, E	3D, POA	3D, POA	3D, POA	OMS, POA	OMS, POA
Defoamer Solids		WA	WA, HS	WA, HS	WA, HS	WA, HS	HS				HS	
Application	Carbon Black	●	●	○	●	○				●	○	○
	Phthalocyanine Blue & Green (e.g. Crude Blue, PBI 15:3, PG 7...)			○		●		●	●	○		○
	Carbazole Violet					○		●	●	○		○
	Organic Red/Yellow (e.g. PR 22, PR 57:1, PY 14...)			○		●			○	○	○	○
	Titanium Dioxide	●	●	●	●	○	●			○	○	
	Transparent Iron Oxide								●	○	○	○
	Opaque Iron Oxide	○	●	●					○		○	
Ease of Incorporation/Emulsifiability		M	M	L	L	M	M	L	L	L	M	L
Persistence to Shear		M	M	H	H	H	H	H	H	H	H	H

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OMS: Organo-Modified Siloxane; WA: Wax; HS: Hydrophobic Silica

Wetting and Leveling Agents

Control surface tension to improve substrate wetting, leveling and overall film quality.

		METOLAT® 288	METOLAT® 1299	METOLAT® 388	METOLAT® 355	METOLAT® 700	METOLAT® 725	METOLAT® 750	METOLAT® 775	METOLAT® 780	METOLAT® 7010	EDAPLAN® LA 402	EDAPLAN® LA 403	EDAPLAN® LA 414	EDAPLAN® LA 413	METOLAT® 340
Type		Anionic Ester	Non-ionic								Acrylic Co-Polymer	OMS	OMS & Non-ionic			
Application	Substrate Wetting	●	●			●	●	●	●	●	○				○	●
	Leveling & Anti-Cratering	○	○			●	●	●	●	●		●	●	●	●	○
	Wetting of Pigments & Fillers		●	●	●	●				○	●					
	Aqueous Systems	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Non-Aqueous Systems			●	●							●		●	●	
	Low Foaming			○	○			○	●	●		●	●	●		
	Inks	○	○					●	●	●						
	Adhesives	●	●			○	○	●	●	●						
	Overprint Varnishes	●	●			○	○	●	●	●						
	Industrial & Wood Coatings	●	●					○	●	●			●	●	●	●
	HLB (Griffin Method)	-	-	10.5	14	12.5	11	10	9	9	12.5	-	-	-	-	-
	FDA 175.105	✓	✓	✓						✓	✓		✓	✓		
FDA 175.300	✓	✓	✓													
FDA 176.170	✓		✓		✓	✓	✓	✓	✓	✓						
FDA 176.180	✓	✓	✓		✓	✓	✓	✓	✓	✓						
FDA 176.210	✓	✓	✓											✓		

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LEGEND - OMS = ORGANO-MODIFIED SILOXANE
All wetting and leveling agents are APEO free.



Pigment Dispersants

Effective particle wetting and dispersing are necessary for high-quality, stable products.

		METOLAT® 390	METOLAT® 392	METOLAT® 394	EDAPLAN® 490	EDAPLAN® 492	EDAPLAN® 494	EDAPLAN® 395	EDAPLAN® 396	EDAPLAN® 918	EDAPLAN® 397	EDAPLAN® 470*	EDAPLAN® 472*	EDAPLAN® 480	EDAPLAN® 482	EDAPLAN® 516	METOLAT® 514	
Chemistry		Fatty Derivative Copolymer	Olefinic		High MW Copolymer						Poly glycol ester	High MW Acrylic-Based Polymer			Acrylic-Based Polymer			
Charge		Anionic			Nonionic		Anionic			Non-ionic	Anionic							
% Active		55	45	55	40	35	50	30	35	100	100	50	50	85	85	20	34	
Solvent		Water								-	-	BDG			Water			
Application	Inorganic Pigments			○	●	○	●	○	○	○	○	○	○	○	○	○	●	○
	Organic Pigments	●	○	○	●	●	○	○	●	●	○	○	○	○	○	●		
	Carbon Blacks		●		○	●	●		○	●		○	○	○	○			
	Transparent Iron Oxides			●	●	○	●	○										
	Fillers			○	●	○	●	○	○		○	○	○	○	○	○	●	●
Suitability		Water								Water & Solvent			Water					
Typical Dosage in Delivery Form on Organic Pigment %		40 - 100	30 - 100							10 - 60								
Typical Dosage in Delivery Form on Inorganic Pigment %		---	---							0.5 - 20								

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All products are APE free and recommended for water-based systems except where noted.

* EDAPLAN 470 (AN= 110 mg/KOH), EDAPLAN 472 (AN= 75 mg/KOH) need to be neutralized prior to use for water-based systems (TDS).

Rheology Modifiers

HEUR and HASE thickeners to optimize flow, sag, leveling, spatter and sedimentation.

	TAFIGEL® PUR 60	TAFIGEL® PUR 61	TAFIGEL® PUR 64	TAFIGEL® PUR 65	TAFIGEL® PUR 40	TAFIGEL® PUR 41	TAFIGEL® PUR 44	TAFIGEL® PUR 48	TAFIGEL® PUR 50	TAFIGEL® PUR 54	TAFIGEL® PUR 45	TAFIGEL® PUR 80	TAFIGEL® PUR 82	TAFIGEL® PUR 85	TAFIGEL® AP 75N	TAFIGEL® AP 15	TAFIGEL® AP 16	TAFIGEL® AP 20	TAFIGEL® AP 30
Rheology Profile	Strongly Pseudoplastic				Pseudoplastic						Newtonian			Pseudoplastic		Strongly Pseudoplastic			
Type	Nonionic Polyurethane				Nonionic Polyurethane						Nonionic Polyurethane			Anionic Copolymer Emulsion					
Solvent	BTG + water	Water	BTG + water		Water	BTG + water		Water	BTG + water	Water		Water				White Oil			
Active Content (%)	40	25	40	20	40	20	40	21	20	40	20	25	31	29	31	32			
Application	Brush and Roller					●	●	●	●	●	●	●	●	●	●	●			
	Spray Applications	●	●	●	○	○	○	○	○	○					○	○			
	Sag Resistance & Anti-Settling	●	●	●	○	○	○	○	○	○				●	●	●	●		
	Systems Difficult to Thicken	○	●	●	●			●					○	●	●	●	●	●	
	Pigment Concentrates														●	●	●	●	●
	KU Builder	●	●	●	○	○	○	○	○	○									
	ICI Builder												●	●	●	●			
APE Free	✓	✓	✓	✓	<0.1%	✓	✓	✓	0.05%	✓	✓	✓	✓	✓	✓	✓	✓	✓	
FDA 175.105		✓							✓	✓		✓	✓	✓					

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BTG: Butoxytriglycol



Additives for Building and Construction

Powder additives to control air entrainment, shrinkage and particle wetting to improve the aesthetics and physical properties of cementitious materials.

	AGITAN® P 801	AGITAN® P 803	AGITAN® P 813	AGITAN® P 823	AGITAN® P 8850	AGITAN® P 841	AGITAN® P 840	AGITAN® P 845	METOLAT® P 871	METOLAT® P 872	METOLAT® P 874	METOLAT® P 530	METOLAT® P 590	METOLAT® P 588	METOLAT® P 854	
Type of Additive	Powder Defoamer								Powder Anti-Shrink			Powder Wetting Agent				
Chemistry	Mineral Oil, Polyglycol				Veg Oil, Polyglycol		Polyglycol		Glycol	Aliphatic Alcohol, Glycol		SN	Glycol	Poly-glycol Ester	AA	
% Active	65	65	50	65	25	55	30	40	55	50	50	90	45	30	35	
Application	Self-Leveling		○	○	●	●	●	●	●	●	●	●	●	●	●	●
	Thin Sets		○		●	●	●		○	●	●	●	○	○	○	○
	Stiff Products	●				○	○		●	●	●	●	●	●	●	●
	Joint Fillers, Grouts & Mortars	●			○	○	○		○	●	●	●	●	●	●	●
	Gypsum & Lime	●			○		○			○	○	○				
	Powder Paints	●	●		●	○	○		○	●	●	●	●	●	●	●
	Construction Adhesives					●	●		●	●	●	●	●			
	Premix Pigment Powder	●	●		●	○	○		○	●	●	●	○	●	●	●

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SN = Sulfonated Naphthalene Condensate, Anionic; AA = Alkylalkoxylate, Nonionic

Additional Products

Specialty Additives

Easy to Clean - METOLAT® ETC 1

- Surface additive that provides easy to clean surface in solvent-based systems
- Reduced adhesion of spray paint and increased marker resistance
- Provides high tape release and slip effect
- Due to its hydroxy functionality, it can be permanently anchored in the binder matrix using suitable 2-component systems, e.g. based on acrylate/isocyanate

OMBRELUB 533

- Hydrophobizing agent for inks and coatings
- Stable fine dispersion of calcium stearate in water
- Increases slip and anti-blocking
- Improves sandability of wood coatings

ZINPLEX 15

- Crosslinking agent for aqueous carboxylated binders
- Ammonia zinc oxide solution
- Improved resistance against water, detergents and solvents
- Increased blocking resistance

Defoamers for Non-Aqueous Systems

FOAMTROL 110, DEE FO® 135,
DEE FO® 718, DEE FO® XKF-1B

Additional Products

Bio-Based Additives

DEFOAMERS

AGITAN® 109

Bio-based content ~70%

AGITAN® 301

Bio-based content ~85%

AGITAN® 352

Bio-based content ~50%

OMBRELUB 533

Bio-based content ~97%

DISPERSANTS

EDAPLAN® 397

Bio-based content ~30%

WETTING AGENTS

METOLAT® 388

Bio-based content ~50%

METOLAT® 367

Bio-based content ~33%

Bio-based = derived from biomass. Biomass = material of biological origin excluding material embedded in geological formations and/or fossilized. "Bio" refers to "Renewable biological resources" and not "biotechnology".
The bio-based product is normally characterized by the bio-based content.