

# COATINGS ADDITIVES





## CONTENT

	<b>DEFOAMERS</b> AGITAN® DEE FO® FOAMTROL	4-7
	<b>DISPERSANTS</b> EDAPLAN® METOLAT®	8-9
	<b>RHEOLOGY MODIFIERS</b> TAFIGEL®	10-11
	<b>WETTING AND LEVELING AGENTS</b> EDAPLAN® METOLAT®	12-13
	<b>POWDER ADDITIVES</b> AGITAN® METOLAT®	14-15
	<b>SPECIALTIES</b> EDAPLAN® METOLAT® LEUKONÖL OMBRELUB ZINPLEX	16



## Coatings Additives

MÜNZING is a highly regarded, privately owned specialty additive company with headquarters in Abstatt, Germany. We have a presence in over 40 countries and are a technology driven organization with an extensive staff of highly experienced R&D and technical service personnel in Europe, the Americas and Australia. Our manufacturing plants in Germany, USA, Australia and Asia have broad synthesis and formulation capabilities in order to best serve our global customer base.

We are committed to creating value and improving our customers' formulations with our complete range of specialty additives. These additives, which include

defoamers, dispersants, rheology modifiers, emulsifiers, wetting and leveling agents, micronized and coated waxes as well as wax dispersions and emulsions have achieved worldwide recognition for their performance, quality and technical innovation.

The technical mission of MÜNZING is to solve coatings formulation problems. We offer state-of-the-art technical service testing to all customers, regardless of their size. Based on our broad range of additive chemistries, MÜNZING's technical service work provides our paints and coatings customers the optimum solutions with respect to both technical performance and value.



# Defoamers

## DEFOAMERS FOR WATER BASED SYSTEMS

Product	Type	Solids	Mineral oil free	Silicone free	VOC free (2004/42/EC)	Incorporation
AGITAN <b>100</b>	poa, e	hs	○	○	○	easy
AGITAN <b>105</b>	poa, e	hs, w	○	○	○	easy
AGITAN <b>108</b> <span style="background-color: yellow;">New</span>	veg, fsi, e	hs	○		○	easy
AGITAN <b>109</b>	veg, poa, e	hs	○	○	○	fair
AGITAN <b>120</b>	poa, oms, e	hs, w	○		○	fair
AGITAN <b>150</b>	oms, e	hs	○		○	easy
AGITAN <b>155</b>	oms, e	hs	○		○	easy
AGITAN <b>156</b>	poa, oms, e		○		○	easy
AGITAN <b>158</b>	oms, e	hs	○		○	easy
AGITAN <b>160</b>	oms, e	hs	○		○	easy
AGITAN <b>170</b>	m, e	hs, w		○	○	fair
AGITAN <b>217</b>	m, fsi	w			○	easy
AGITAN <b>218</b>	m, fsi	w			○	easy
AGITAN <b>230</b>	m	hs, w		○	< 1%	hard
AGITAN <b>232</b>	m	hs, w		○	○	easy
AGITAN <b>260</b>	wo	hs, w		○	○	hard
AGITAN <b>265</b>	wo	hs, w		○	○	hard
AGITAN <b>271</b>	veg, poa	hs	○	○	○	hard
AGITAN <b>280</b>	m	hs		○	○	fair
AGITAN <b>282</b>	m	hs		○	○	easy
AGITAN <b>291</b>	poa		○	○	○	easy
AGITAN <b>295</b>	m	hs, w		○	○	easy
AGITAN <b>299</b>	poa		○	○	○	easy
AGITAN <b>301</b>	veg, fsi	w	○		○	easy
AGITAN <b>305</b>	wo	hs, w		○	○	easy
AGITAN <b>307</b>	wo	hs, w		○	○	easy
AGITAN <b>315</b>	wo	hs, w		○	○	hard

e = aqueous emulsion  
 fsi = few silicone  
 hs = hydrophobic silica  
 m = mineral oil

oms = organic modified polysiloxane  
 PDMS = silicone compound  
 poa = polyoxalkylene technology  
 veg = vegetable oil

w = wax  
 wo = white oil  
 3D = 3D polysiloxane

Defoamers

Adhesives	Printing inks	Architectural paints	Plasters	Building products	Industrial coatings	Wood coatings	Pigment concentrates	Chemical processes
		●●	●					
	●	●●	●					
●		●●		●				●
●	●	●●	●●					●
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	●				●●	●●		
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●●	●							●●
●●	●	●	●●		●●	●		●

○ Applicable   ● Recommended   ●● Highly recommended

... further defoamers on Page 6-7 ▶

# Defoamers

## DEFOAMERS FOR WATER BASED SYSTEMS

Product	Type	Solids	Mineral oil free	Silicone free	VOC free (2004/42/EC)	Incorporation
AGITAN <b>350</b>	poa	hs, w	○	○	○	hard
AGITAN <b>351</b>	poa	hs, w	○	○	○	fair
AGITAN <b>352</b> <b>New</b>	veg, poa	hs	○	○	○	fair
AGITAN <b>381</b>	wo, poa	hs		○	○	easy
AGITAN <b>655</b>	wo	w		○	○	easy
AGITAN <b>701</b>	m, poa, fsi	hs, w			○	hard
AGITAN <b>731</b>	oms, poa	hs	○		○	hard
AGITAN <b>760</b>	oms, poa		○		○	hard
AGITAN <b>761</b>	oms		○		○	hard
AGITAN <b>765</b>	oms		○		○	fair
AGITAN <b>766</b>	oms, poa		○		○	fair
AGITAN <b>771</b>	oms, poa		○			fair
AGITAN <b>E 255</b>	oms, e		○		○	easy
AGITAN <b>E 256</b>	oms, e	hs	○		○	easy
DEE FO <b>PI-12</b>	poa, m	hs, w		○	○	fair
DEE FO <b>PI-35</b>	3D, e		○			fair
DEE FO <b>PI-35/50</b>	3D, e		○			fair
DEE FO <b>PI-40</b>	3D, e		○		○	easy
DEE FO <b>PI-45</b>	3D, e		○		○	easy
DEE FO <b>PI-75</b>	3D, oms, e		○		○	easy

All defoamers in these overviews are APE free.

## DEFOAMERS FOR SOLVENT BASED AND SOLVENT FREE SYSTEMS

Product	Type	Solids	Mineral oil free	Silicone free	VOC free (2004/42/EC)	Incorporation
AGITAN <b>DF 311 M</b>	m, fsi					easy
AGITAN <b>DF 6420</b>	m, fsi					easy
FOAMTROL <b>110</b>	PDMS		○		○	easy

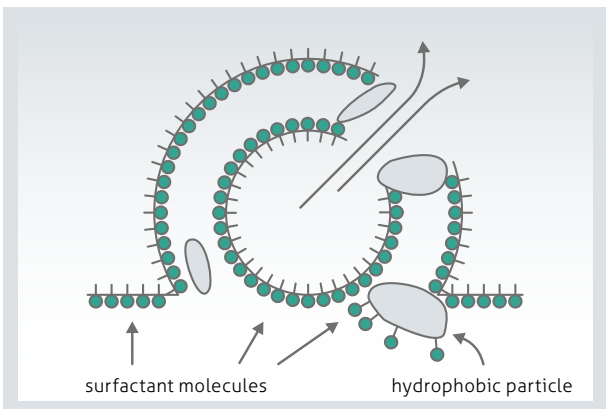
e = aqueous emulsion  
fsi = few silicone  
hs = hydrophobic silica  
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oms = organic modified polysiloxane  
PDMS = silicone compound  
poa = polyoxalkylene technology  
veg = vegetable oil

w = wax  
wo = white oil  
3D = 3D polysiloxane

Adhesives	Printing inks	Architectural paints	Plasters	Building products	Industrial coatings	Wood coatings	Pigment concentrates	Chemical processes
	●●	●●	●●		●		●●	
●	●●	●●	●●		●	●	●●	
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●●	●●	●			●			
	●●						●	
●	●●	●			●●	●●	●	

○ Applicable    ● Recommended    ●● Highly recommended



**Figure |** Foam bubble with surfactant double layer

Additional Technical Information on [www.munzing.com](http://www.munzing.com)  
 Defoamer Technologies  
 Defoamer Application Tables  
 Defoamer Recommendations for Binders

# Dispersants

## DISPERSANTS

Product	Type	Charge	Active content %	Solvent
EDAPLAN <b>395</b>	High molecular copolymer	anionic	30	Water
EDAPLAN <b>396</b>	High molecular copolymer	anionic	35	Water
EDAPLAN <b>397</b>	Polyglycol esters	nonionic	100	–
EDAPLAN <b>480</b>	Acrylic based polymer	anionic	85	Water
EDAPLAN <b>482</b>	Acrylic based polymer	anionic	85	Water
EDAPLAN <b>490</b>	High molecular copolymer	nonionic	40	Water
EDAPLAN <b>492</b>	High molecular copolymer	nonionic	35	Water
EDAPLAN <b>494</b>	High molecular copolymer	anionic	50	Water
EDAPLAN <b>516</b>	Acrylic based polymer	anionic	20	Water
EDAPLAN <b>710</b>	Block copolymer	nonionic	30	Dicarboxylic acid ester
EDAPLAN <b>711</b>	Block copolymer	nonionic	35	Butyl acetate
EDAPLAN <b>910</b>	Modified polyglycol ester	anionic	100	–
EDAPLAN <b>915</b>	Modified fatty acid derivative	anionic	100	–
EDAPLAN <b>930</b> <b>New</b>	High molecular copolymer	anionic	100	–
EDAPLAN <b>935</b> <b>New</b>	High molecular copolymer	nonionic	100	–
METOLAT <b>390</b>	Fatty derivative copolymer	anionic	55	Water
METOLAT <b>392</b>	Olefinic polymer	anionic	45	Water
METOLAT <b>394</b>	Olefinic polymer	anionic	55	Water
METOLAT <b>514</b>	Acrylic based polymer	anionic	34	Water
METOLAT <b>LA 524</b>	Fatty derivative copolymer	amphoteric	50	Xylene / iso-butanol

All dispersants in this overview are APE free.

### EDAPLAN 396 / 494

» especially for laked azo pigments

### EDAPLAN 397

» especially for phthalocyanine pigments  
 » suitable for food contact applications  
 » based on renewable raw materials

### EDAPLAN 490

» nonionic copolymer for all kinds of pigments and carbon blacks

### EDAPLAN 492 / METOLAT 392

» especially for carbon blacks

### EDAPLAN 494

» especially for difficult to disperse inorganic pigments

### EDAPLAN 910/915

» to manufacture water based universal pigment concentrates



Water based systems	Solvent based systems	High solids / 100% UV systems	Inorganic pigments	Organic pigments	Carbon blacks	Transparent inorganic pigments	Fillers	Matting agents (Silicas)	Laked azo pigments
●●			●●	●●	●	●	●●		
●●				●●	●	●●			●●
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●●			●	●●	●●	●●	●●	●●	●
●●			●●	●●	●●	●●	●●		●●
●●			●●				●●		
	●	●●	●	●●	●	●	●		
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	●●		●●	●			●●		

○ Applicable    ● Recommended    ●● Highly recommended

**EDAPLAN 490 / 494 / METOLAT 390**

» especially for organic pigments

**EDAPLAN 396 / 494 / METOLAT 394**

» especially for transparent inorganic pigments

Dispersants

# Rheology Modifiers

## RHEOLOGY MODIFIERS

Product	Rheology profile	Type	Active content %	Solvent	VOC free (2004/42/EC)
TAFIGEL <b>PUR 41</b>	pseudoplastic	PUR	20	Water	○
TAFIGEL <b>PUR 44</b>	pseudoplastic	PUR	40	Water / butyltriglycol	○
TAFIGEL <b>PUR 45</b>	newtonian	PUR	40	Water / butyltriglycol	○
TAFIGEL <b>PUR 48</b>	pseudoplastic	PUR	40	Water / butyltriglycol	○
TAFIGEL <b>PUR 52</b>	pseudoplastic	PUR	20	Water	○
TAFIGEL <b>PUR 54</b>	pseudoplastic	PUR	20	Water	○
TAFIGEL <b>PUR 60</b>	strong pseudoplastic	PUR	40	Water / butyltriglycol	○
TAFIGEL <b>PUR 61</b>	strong pseudoplastic	PUR	25	Water	○
TAFIGEL <b>PUR 64</b>	strong pseudoplastic	PUR	40	Water / butyltriglycol	○
TAFIGEL <b>PUR 65</b>	strong pseudoplastic	PUR	20	Water / butyltriglycol	○
TAFIGEL <b>PUR 80</b>	newtonian	PUR	20	Water	○
TAFIGEL <b>PUR 82</b>	newtonian	PUR	20	Water	○
TAFIGEL <b>PUR 85</b>	newtonian	PUR	25	Water	○
TAFIGEL <b>AP 10</b>	system dependent	AP	31	Water	○
TAFIGEL <b>AP 15</b>	system dependent	AP	29	Water	○
TAFIGEL <b>AP 16</b>	system dependent	AP	29	Water	○
TAFIGEL <b>AP 20</b>	strong pseudoplastic	AP	31	Water / white oil	○

PUR = Polyurethane (nonionic)

AP = Anionic copolymer emulsion

Organo tin free	APE free	Brush and roller application	Curtain coating	Spray application	Anti-sagging & anti-settling	Systems difficult to thicken	Pigment concentrates	High alkaline systems
○	○	●●		●	●			
○	○	●●		●	●			
	○	●●	●●					
○	○	●●		●	●	●●		
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○	○	●●		●	●			
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○	○	●			●●	●●	●	●●

○ Applicable    ● Recommended    ●● Highly recommended

Rheology Modifiers

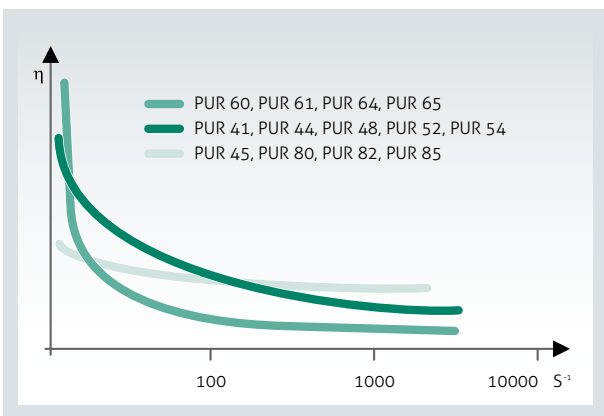


Figure | Rheology profiles of TAFIGEL® PUR thickeners

Additional Technical Information on [www.munzing.com](http://www.munzing.com)  
Rheology Modifiers  
Technical News No. 4

# Wetting & Leveling Agents

WETTING & LEVELING AGENTS					
Product	Type	Charge	Active content %	Solvent	Silicone free
METOLAT <b>285</b>	Ester	anionic	50	Water	○
METOLAT <b>288</b>	Ester	anionic	50	Water	○
METOLAT <b>340</b> <b>New</b>	Organic modified polysiloxane	nonionic	100	–	
METOLAT <b>342</b> <b>New</b>	Organic modified polysiloxane	nonionic	100	–	
METOLAT <b>355</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>362</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>364</b> <b>New</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>365</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>367</b>	Ester	nonionic	100	–	○
METOLAT <b>368</b>	Ester	nonionic	100	–	○
METOLAT <b>388</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>700</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>775</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>780</b>	Nonionic compounds	nonionic	100	–	○
METOLAT <b>1299</b>	Ester	anionic	66	Water / propylene glycol	○
EDAPLAN <b>LA 402</b>	Acrylic copolymer	anionic	50	Butyl glycol	○
EDAPLAN <b>LA 403</b>	Acrylic copolymer	anionic	85	Water	○
EDAPLAN <b>LA 410</b>	Organic modified polysiloxane	nonionic	100	–	
EDAPLAN <b>LA 413</b>	Organic modified polysiloxane	nonionic	100	–	
EDAPLAN <b>LA 414</b> <b>New</b>	Organic modified polysiloxane	nonionic	100	–	
EDAPLAN <b>LA 415</b> <b>New</b>	Organic modified polysiloxane	nonionic	50	Methoxypropylacetate	
EDAPLAN <b>LA 451</b>	Ester	anionic	68	Water / ethanol	○
EDAPLAN <b>LA 452</b>	Ester	anionic	83	Water	○

All wetting and leveling agents in this overview are APE free.

VOC free (2004/42/EC)	Water based systems	Solvent based systems	Substrate wetting	Substrate wetting in overprint varnishes	Leveling / anti-cratering	Wetting of pigments & fillers	Slip	Gloss	Brilliance with metallics	Compatibility agent	No foaming tendency
	●●		●●	●●	●	●		●			
	●●		●●	●●				●			
○	●●		●●	●●	●						
○	●●		●●	●●	●						
○	●●	●●				●●			●	●●	●
○	●●		●●	●●	●●						●●
○	●●		●●	●	●●						●●
	●●		●		●●						●●
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○	●●		●●		●●						
○	●●	●●				●●			●	●●	●●
○	●●		●●	●	●●						●●
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	●●		●●	●	●				●●		●
○	●●		●●		●				●●		●

○ Applicable    ● Recommended    ●● Highly recommended

Wetting & Leveling Agents

# Powder Additives

## POWDER DEFOAMERS

Product	Type	Active content %	APE free	VOC free (2004/42/EC)	Powder paints
AGITAN <b>P 800</b>	Mineral oil, polyglycols	65	○	○	●
AGITAN <b>P 801</b>	Mineral oil, few silicone	65	○	○	●●
AGITAN <b>P 803</b>	Mineral oil, polyglycols	65	○	○	●●
AGITAN <b>P 804</b>	Organic modified polysiloxane	65	○	○	●
AGITAN <b>P 813</b>	Mineral oil, polyglycols	50	○	○	
AGITAN <b>P 823</b>	Mineral oil, polyglycols	65	○	○	●●
AGITAN <b>P 833</b>	Mineral oil, polyglycols	55	○	○	●
AGITAN <b>P 840</b>	Polyglycols	30	○	○	
AGITAN <b>P 841</b>	Vegetable oil, polyglycols	55	○	○	●
AGITAN <b>P 845</b>	Polyglycols	40	○	○	●

## SHRINKAGE REDUCING AGENTS

Product	Type	Active content %	APE free	VOC free (2004/42/EC)
METOLAT <b>P 860</b>	Glycols	65	○	
METOLAT <b>P 861</b>	Glycols	65	○	
METOLAT <b>P 871</b>	Glycols	55	○	
METOLAT <b>P 872</b>	Aliphatic alcohols, glycols	50	○	○
METOLAT <b>P 873</b>	Alkylalkoxylates	40	○	
METOLAT <b>P 874</b>	Aliphatic alcohols, glycols	50	○	○

Silicate plasters	Mineral based plasters	Tile adhesives	Sealants	Leveling compounds	Joint fillers	Cementitious floor screeds	Anhydrite floor screeds	Gypsum	Mortars
	●●	●●	●●	●●		●●	●	●	●●
●●	●	●	●	●		●	●	●●	●●
	●●		●	●●	●●	●●	●●	●	●
		●●	●●		●		●●	●●	●
				●		●	●	●	●
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	●	●●	●●	●●	●●	●	●		●

### POWDER WETTING AGENTS

Product	Type	Active content %	APE free	VOC free (2004/42/EC)	Improved pigment dispersion	Carbon blacks	Iron oxides	Wetting of reinforcement fibres	Coloured joint fillers	Homogeneous surface aspect
METOLAT P 530	Sulphonated naphthaline condensate	91	○	○	●●	●●	●	●	●	
METOLAT P 588	Polyglycol ester	65	○	○	●●	●	●●	●	●●	●●
METOLAT P 590	Glycols	65	○	○	●●	●	●●	●	●●	●●
METOLAT P 854	Nonionic surfactant	65	○	○	●	●●		●●		●

○ Applicable    ● Recommended    ●● Highly recommended

# Specialties

## **EDAPLAN LA 106 HF**

- » hammer finish additive for solvent based systems
- » solution of polymers in hydrocarbons
- » suitable for air drying coatings and stoving enamels
- » high degree of pattern control

## **METOLAT 150/100**

- » silicone oil based hammer finish additive for solvent based systems
- » eliminates pinholes
- » specifically designed for use with EDAPLAN LA 106 HF

## **LEUKONÖL LBA 2**

- » emulsifier for polymer binder production
- » wetting agent for high alkaline systems
- » sulphated castor oil

## **OMBRELUB MA 2**

- » stable matting agent dispersion for water-based printing inks, wood coatings and other coatings
- » suitable to achieve semi matt effects
- » increases scratch and chemical resistance
- » no negative effect on the performance of polyurethane thickeners

## **OMBRELUB 533**

- » hydrophobing agent for inks and coatings
- » stable fine dispersion of calcium stearate in water
- » increase of slip and anti-blocking
- » improvement of sandability of wood coatings

## **OMBRELUB 730**

- » additive for the prolongation of open time of plasters and facade paints
- » stable fine dispersion of fatty derivatives in water
- » prevention of crack formation

## **ZINPLEX 15**

- » crosslinking agent for carboxylated binders
- » ammoniac zinc oxide solution
- » improved resistance against water, detergents and solvents
- » increased blocking resistance









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## Contact

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