



WOOD COATING ADDITIVES





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Wood Coating 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 Asia. Our manufacturing plants in Germany, USA and China 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.

Wood is the world's most important natural material for building, construction and living. It has been used by mankind since thousands of years. Even today wooden furniture, floorings and articles of daily use experience great popularity. Wood provides high versatility and stability in combination with excellent workability, but it is sensitive to external influences like abrasion, humidity, temperature variations, germs etc. A multitude of coatings have been developed to protect it and to emphasize its natural beauty. Whereupon each coating has to meet individual requirements depending on the use the wooden object. This confronts wood coating formulators consistently with new challenges. MÜNZING has long lasting expertise in wood coatings and our aim is helping wood coating formulators around the world with our additives and our technical service to develop products that provide their customers with the best possible solution.



Water Based Systems

Defoamers

Surface active agents (surfactants) especially emulsifiers, wetting and dispersing agents are used to emulsify and stabilize hydrophobic substances e.g. binder particles, pigments and fillers in water based coatings. These surfactants tend to create foam by stabilizing incorporated air in aqueous systems, that can lead to problems during the production as well as the application of water based wood coatings.

When selecting a suitable defoamer, special attention has to be paid to the balance between defoaming efficiency and compatibility with the coating. Our broad range of defoamers and deaerators based on different chemical technologies enables us to offer you the optimal defoamer for each type and application of your water based wood coatings.

DEFOAMERS

Product	Type	Mineral oil free	Silicone free	VOC free (2004/42/EC)	Incorporation	Enamels	Wood preservative primers	Wood glazings	Wood stains	Wood protective coatings
AGITAN 109	veg, poa, e	○	○	○	easy	●	●●	●●		●
AGITAN 120	poa, oms, e	○		○	easy	●		●	●	
AGITAN 155	oms, e	○		○	easy	●		●	●	●
AGITAN 156	poa, oms, e	○		○	easy	●●	●	●	●	●
AGITAN 158 New	oms, e	○		○	easy	●●	●	●	●	●
AGITAN 282	m		○	○	easy	●●	●	●		●●
AGITAN 295	m		○	○	easy	●●	●	●	●	●●
AGITAN 315	wo		○	○	hard	●				●
AGITAN 351	poa	○	○	○	fair	●	●●	●	●	
AGITAN 701	m, poa, fsi			○	hard	●		●●		●
AGITAN 731	oms, poa	○		○	hard	●●	●			●●
AGITAN 760	oms, poa	○		○	hard	●●	●●	●●		●●
AGITAN 761	oms	○		○	hard	●●	●●	●●		●●
AGITAN 765	oms	○		○	fair			●		●
AGITAN 766	oms, poa	○		○	fair	●	●	●	●	●
AGITAN E 256	oms, e	○		○	easy	●●	●●	●●	●●	●●
DEE FO PI-75	3D, oms, e	○		○	easy	●	●			●●

e = Aqueous emulsion

poa = Polyoxalkylene technology

fsi = Few silicone

m = Mineral oil

3D = 3D polysiloxane

veg = vegetable oil

wo = White oil

oms = Organic modified polysiloxane

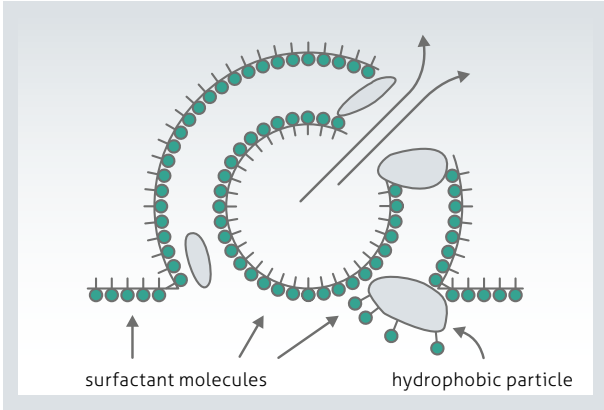


Figure | Foam bubble with surfactant double layer

Additional Technical Information on www.munzing.com
 Defoamer Technologies
 Defoamer Application Tables
 Defoamer Recommendations for Binders

Thick layer wood coatings	Curtain paints for furniture	Parquet coatings	Water dilutable alkyds	2K polyurethane coatings	Water dilutable UV coatings	Brush and roller application	Spray application	Curtain coating	Vacuum coating
●	●	●				●	●	●	
●			●		●	●			
●		●●		●		●●			
●●	●●	●●	●	●●	●●	●	●●	●●	●
●●	●●	●●	●	●●	●●	●	●●	●●	●
●			●		●	●			
			●●		●	●			
●		●	●		●	●			
●●		●	●	●	●	●●			●
●●			●●	●		●	●		
●●	●	●	●	●	●●	●	●		●
●●	●	●●	●●	●	●●	●	●	●	
●●	●	●●	●	●	●●	●	●	●	
●●		●●	●●	●●	●	●	●●		●
●●	●	●●	●●	●●	●	●	●●	●	●
●●	●●	●	●	●	●●	●●		●●	
●●			●	●●		●	●		●●

○ Applicable ● Recommended ●● Highly recommended

All defoamers in this overview are APE free.

Water Based Systems

Dispersing Agents

For the dispersion of pigments, fillers as well as functional additives e.g. transparent inorganic pigments (iron oxide, titanium dioxide) and matting agents (silica) in water based wood coatings we offer a broad range of high quality dispersing agents.

In addition to the following product overview including recommendations for applications guide formulations for many pigments are available. Furthermore we are offering you on request to prepare dispersant recommendations for specific pigments.

Additional Technical Information on www.munzing.com
 Dispersing Technologies
 Dispersant Recommendations
 Guide Formulations
 Technical News No. 3

DISPERSING AGENTS

Product	Type	Charge	Active content %	Solvent	APE free
EDAPLAN 395	High molecular copolymer	anionic	30	Water	○
EDAPLAN 396	High molecular copolymer	anionic	35	Water	○
EDAPLAN 397	Polyglycol esters	nonionic	100	–	○
EDAPLAN 470	Acrylic based polymer	anionic	50	Butyldiglycol	○
EDAPLAN 472	Acrylic based polymer	anionic	50	Butyldiglycol	○
EDAPLAN 480	Acrylic based polymer	anionic	85	Water	○
EDAPLAN 482	Acrylic based polymer	anionic	85	Water	○
EDAPLAN 490	High molecular copolymer	nonionic	40	Water	○
EDAPLAN 492	High molecular copolymer	nonionic	35	Water	○
EDAPLAN 494	High molecular copolymer	nonionic	50	Water	○
EDAPLAN 516	Acrylic based polymer	anionic	20	Water	○
EDAPLAN 910	Modified polyglycol ester	anionic	100	–	○
EDAPLAN 915	Modified fatty acid derivative	anionic	100	–	○
METOLAT 390	Fatty derivative copolymer	anionic	55	Water	○
METOLAT 392	Olefinic copolymer	anionic	45	Water	○
METOLAT 394	Olefinic copolymer	anionic	55	Water	○
METOLAT 514	Acrylic based polymer	anionic	34	Water	○

Inorganic pigments	Organic pigments	Carbon blacks	Transparent inorganic pigments	Fillers	Matting agents (Silica)
●●	●●		●	●●	
	●●	●	●●		
	●●				
●●	●●	●●		●●	
●●	●●	●●		●●	
●●	●●	●●		●●	
●●	●●	●●		●●	●●
	●●	●●	●●		●●
●●	●	●	●●		
●●				●●	
●●	●●	●●		●●	
●●	●●	●		●●	
	●●				
	●	●●			●
●●	●		●●	●●	●●
●●				●●	

Water Based Systems

Rheology Modifiers

For the optimal application of coatings on wood it is necessary to adjust the rheology profile of the coating with the help of rheology modifiers. This can be managed by using associative thickeners based on polyurethanes. Polyurethane thickeners can be used solely or in combination with each other as well as with other types of thickeners (e.g. polyacrylates or cellulose ethers).

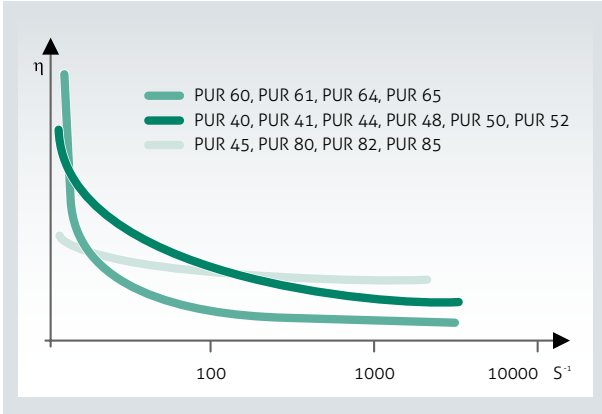
In addition to the following product overview including recommendations for applications, our application technology team is at your disposal to identify the best rheology modifier or combination of thickeners for your specific formulations through lab tests.

RHEOLOGY MODIFIERS

Product	Rheology profile	Type	Active content %	Solvent	VOC free (2004/42/EC)
TAFIGEL PUR 40	Pseudoplastic	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 41	Pseudoplastic	PUR	20	Water	○
TAFIGEL PUR 44	Pseudoplastic	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 45	Newtonian	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 48	Pseudoplastic	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 50	Pseudoplastic	PUR	21	Water	○
TAFIGEL PUR 52	Pseudoplastic	PUR	20	Water	○
TAFIGEL PUR 60	Strong pseudoplastic	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 61	Strong pseudoplastic	PUR	25	Water	○
TAFIGEL PUR 64	Strong pseudoplastic	PUR	40	Water / Butyltriglycol	○
TAFIGEL PUR 65	Strong pseudoplastic	PUR	20	Water / Butyltriglycol	○
TAFIGEL PUR 80	Newtonian	PUR	20	Water	○
TAFIGEL PUR 85	Newtonian	PUR	25	Water	○
TAFIGEL AP 10	System dependent	AP	31	Water	○
TAFIGEL AP 15	System dependent	AP	29	Water	○
TAFIGEL AP 16	System dependent	AP	29	Water	○

PUR = Polyurethane (nonionic)

AP = Anionic copolymer emulsion



Additional Technical Information on www.munzing.com
Rheology Modifiers
Technical News No. 4

Figure | Rheology profiles of TAFIGEL® PUR thickeners

Water Based Systems

Organo tin free	APE free	Brush and roller application	Curtain coating	Spray application	Anti-sagging & anti-settling	Systems difficult to thicken
	< 0.1%	●●		●	●	
○	○	●●		●	●	
○	○	●●		●	●	
	○	●●	●●			
○	○	●●		●	●	●●
	< 0.05%	●●		●	●	
○	○	●●		●	●	
	○			●●	●●	●
○	○			●●	●●	●
○	○			●●	●●	●●
○	○			●●	●●	●●
○	○	●●	●●			
○	○	●●	●●			●
○	○	●●	●		●●	●●
○	○	●●	●	●	●●	●●
○	○	●●		●	●●	●●

○ Applicable ● Recommended ●● Highly recommended

Water Based Systems

Wetting and Leveling Agents

Wetting and leveling agents are used in water based coatings to improve substrate wetting or leveling, to enhance gloss or to prevent cratering. They can influence the properties of wood coatings in different ways. Therefore it is important to test and select these additives carefully.

The following table contains some important information of a selection of our wetting and leveling agents for water based wood coatings. Our application technology team would be glad to support you through lab tests to identify the most suitable additive for your application.

Additional Technical Information on www.munzing.com
Additives for Surface and Substrate
Technical News No. 2

WETTING & LEVELING AGENTS

Product	Type	Charge	Active content %	Solvent	Silicone free
METOLAT 288	Ester	anionic	50	Water	○
METOLAT 355	Nonionic compounds	nonionic	100	–	○
METOLAT 362	Nonionic compounds	nonionic	100	–	○
METOLAT 364 New	Nonionic compounds	nonionic	100	–	○
METOLAT 365	Nonionic compounds	nonionic	100	–	○
METOLAT 388	Nonionic compounds	nonionic	100	–	○
METOLAT 700	Nonionic compounds	nonionic	100	–	○
METOLAT 725	Nonionic compounds	nonionic	100	–	○
METOLAT 750	Nonionic compounds	nonionic	100	–	○
METOLAT 775	Nonionic compounds	nonionic	100	–	○
METOLAT 780	Nonionic compounds	nonionic	100	–	○
EDAPLAN LA 402	Acrylic copolymer	anionic	50	Glycol ether	○
EDAPLAN LA 403	Acrylic copolymer	anionic	85	Water	○
EDAPLAN LA 411	Organic modified polysiloxane	nonionic	100	–	○
EDAPLAN LA 413	Organic modified polysiloxane	nonionic	100	–	○
EDAPLAN LA 451	Ester	anionic	68	Ethanol/ Water	○
EDAPLAN LA 452	Ester	anionic	83	Water	○

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



Water Based Systems

VOC free (2004/42/EC)	Substrate wetting	Leveling	Anti-cratering	Wetting of pigments & fillers	Gloss	Wood penetration	Defoaming properties
	●●		●		●		
○			●	●●		●	
○	●●	●	●				●●
○	●●	●	●				●●
○	●	●	●				●●
○			●	●●		●●	●●
○	●●	●●	●●				
○	●●	●●	●●				
○	●●	●●	●●				
○	●●	●●	●●				
		●●	●		●●		●
○		●●	●		●●		●
○	●●	●●	●●		●		
	●●	●●	●●		●		
	●●	●	●●		●		●
○	●●	●	●●		●		●

○ Applicable ● Recommended ●● Highly recommended

Water Based Systems

Micronized Waxes

Due to growing ecological awareness among customers, water based wood coatings become more and more important. Nevertheless water based wood coatings should still achieve the same properties as traditional, mainly solvent based coatings. This can be accomplished by using CERETAN micronized waxes and LUBA-print wax dispersions. With the use of waxes, coated wooden surfaces become durable and pleasant to the touch.

Our micronized waxes and wax dispersions are available in a variety of particle sizes to meet exactly the requirements of our customers.

CERETAN micronized waxes are easy to handle in water based formulations. The particle shapes, as well as the narrow particle size distribution support the incorporation process. Moreover, the influence on rheology of the final product is minimized.

CERETAN micronized waxes offer 100% active content leading to a reduction of the amount of wax in the formulation, due to its narrow particle size distribution. We guarantee a D_{99} value, which almost completely avoids oversized particles. The particle shape offers a much more even surface, improves the dispersing properties and reduces the generation of dust during the incorporation process.

MICRONIZED WAXES

Product	Wax type	Particle size		Drop point °C
		D_{99} µm	D_{50} µm	
CERETAN ME 0825	Polyethylene	25	8	110–118
CERETAN ME 1620	Polyethylene	20	6	122–130
CERETAN ME 1715	Polyethylene	15	7	122–130
CERETAN MM 8015	Montan	15	5	90–98
CERETAN MM 8920	Modified montan	20	7	99–107
CERETAN MO 3220 New	Oxidized polyethylene	20	7	104–112
CERETAN MO 4715	Polar polyolefin	15	6	108–116
CERETAN MO 4920	Polar Fischer-Tropsch	20	7	106–114
CERETAN MP 2120	Polypropylene	20	10	156–164
CERETAN MX 2919	Functional blend	19	9	140–146
CERETAN MX 2922	Functional blend	22	9	138–146
CERETAN MX 9720	Functional blend	20	8	138–146

* = Melting Point

Water Based Systems

Coated Waxes

Our latest technology enables us to coat our micronized waxes! Coating the surface with special solid materials offers additional benefits. Currently we offer a silica coated wax for improved matting efficiency and a PTFE coated wax for excellent scratch resistance. You do not need to purchase additional and expensive additives, we can offer almost everything from a single source.

CERETAN coated waxes combine the advantages of micronized waxes with those of the respective coating material. The coating is homogeneously distributed on the surface of the wax particle. We can offer combined benefits of two materials in one product.

COATED WAXES

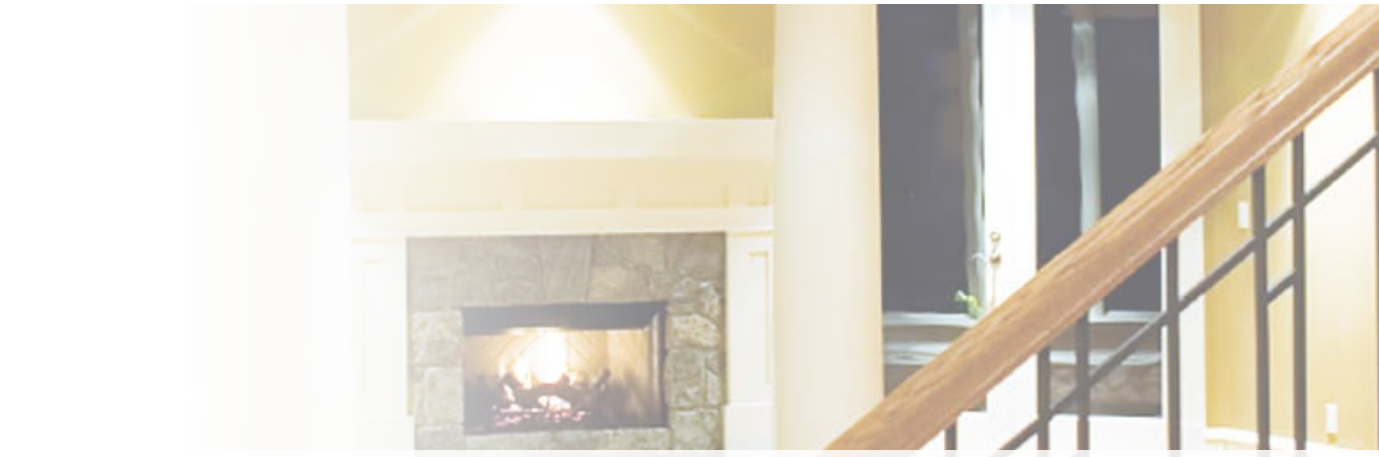
Product	Wax type	Coating	Particle size		Drop point °C
			D ₉₉ µm	D ₅₀ µm	
CERETAN MPS 3120	Polypropylene	Silica	20	6	156–164
CERETAN MXD 3920	Functional blend	Diamond-like hardness	20	7	138–146
CERETAN MXF 9820 D	Polyolefin	PTFE	20	8	111–119 (PTFE: 320–340*)
CERETAN MXS 3815	Functional blend	Silica	15	6	105–120

SURFACE-MODIFIED WAXES

Product	Wax type	Particle size		Drop point °C
		D ₉₉ µm	D ₅₀ µm	
CERETAN ME 0825 WD^{ns}	Polyethylene	25	8	107–117
CERETAN MX 9820 WD^{ns}	Polyolefin	20	7	111–119

ns = non-standard

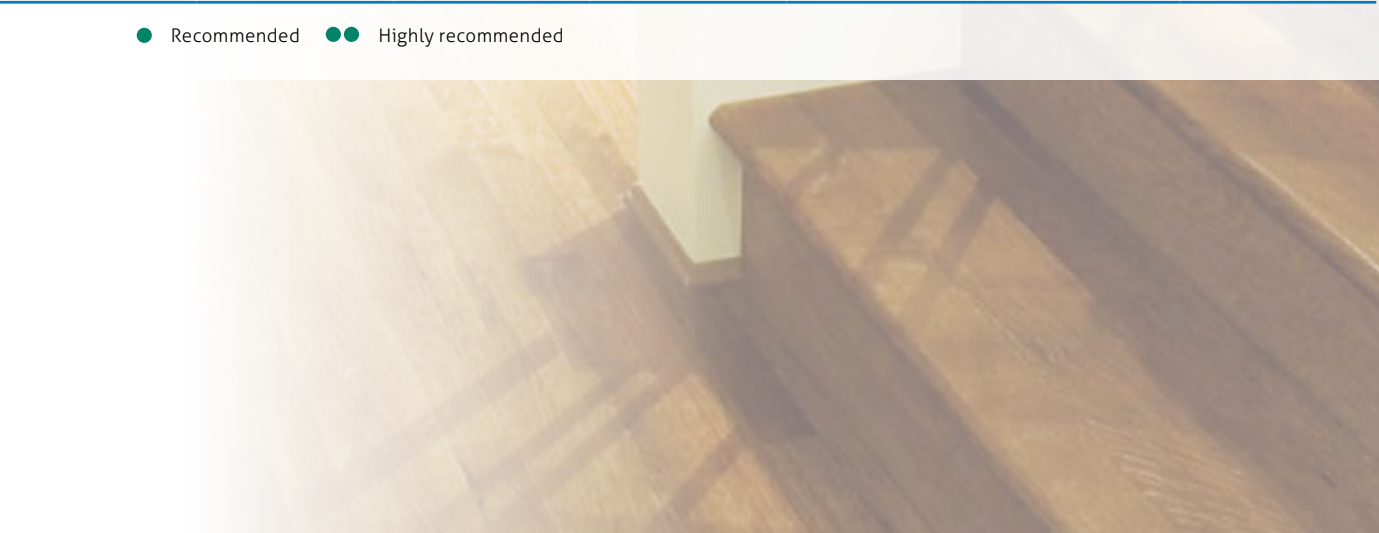
* = Melting Point



Anti-blocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●●		●●	●●	
●	●	●		●●	●	●
●●	●	●	●	●●	●●	●
●	●	●●	●	●	●	●

Anti-blocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●	●	●●	●●	●
●	●	●	●	●	●	●

● Recommended ●● Highly recommended



Water Based Systems

Wax Dispersions and Emulsions

Being an expert for wax additives our technical service team will help you improve the surface properties of your products.

In close cooperation with you, our modern laboratory and our staff are at your disposal to develop and formulate wax dispersions to meet your specific needs and

WAX DISPERSIONS AND EMULSIONS

Product	Wax type	Solid content %	Particle size		Melting range °C
			D ₉₈ µm	D ₅₀ µm	
LUBA-print 154/S	Polyethylene	60	24	6	115–121
LUBA-print 164/G	Amide	32	30	9	147–153
LUBA-print 233/H	Functional blend	17	–	–	62–68
LUBA-print 280/W	Hydrocarbon combination	50	5	–	45–51*
LUBA-print 445/W	Paraffin	50	–	–	59–69
LUBA-print 499	Polyethylene	40	9	4	130–140
LUBA-print 552/A	Polyethylene / Organic matting agent	41	22	6	130–136
LUBA-print 552/D^{ns}	Wax / Silica	35	23	7	147–153
LUBA-print 645	Polymers	44	30	14	137–143
LUBA-print 760/D	Polyethylene	64	20	6	124–134
LUBA-print 914/A	Functional blend	39	20	6	136–146
LUBA-print 942	Polyethylene	39	3	–	92–100*
LUBA-print W 5700	Polyethylene	48	7	3	112–122
LUBA-print WE 0825^{ns}	Polyethylene	45	24	6	110–118*
LUBA-print WM 8018	Montanester	55	18	6	70–80
LUBA-print WO 4920 New	Polar Fischer- Tropsch	55	20	6	106–114*
LUBA-print WP 2120	Polypropylene	45	20	8	156–164*
LUBA-print WX 9817	Polyolefin	60	17	6	111–119*

ns = non-standard

* = Drop Point

n = nonionic

a = anionic

provide the desired effects in your coating systems.
The special service is available to you at all times.

pH-value	Ionogenicity	Anti-blocking	Hydrophobicity	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip	Special properties	Exterior	Furniture coatings	Parquet	Window frame coatings
8,0	n	●		●	●	●	●●	●			●●		●●
8,5	n	●●	●	●●	●	●	●			●●	●●		●●
10,0	a		●●						Positive effect, wax stains		●●		
9,5	a	●●	●●		●		●	●●	Chemical resistance, hydrophobicity	●●	●●		●●
7,5	n	●●	●●				●	●●	Metal marking	●●	●●		●●
4,0	n	●				●	●	●		●●	●●		●●
5,5	n	●		●●		●	●●	●			●●	●●	●
7,0	n	●		●●		●	●●	●			●●	●●	●
6,8	n	●		●●		●●	●●				●●	●	
4,0	n	●		●		●●	●●	●			●●		●
7,0	n	●●		●●	●●	●●	●●	●	Haptics		●●	●	●●
8,0	n	●●	●		●	●	●	●●		●●	●		●●
4,5	n	●		●		●	●	●			●●	●	
7,0	n	●		●	●	●●	●●	●		●	●●		●
5,5	n	●		●			●●	●			●●		●
7,0	n	●		●●	●	●	●●	●			●●		●
7,5	n	●●		●●	●●	●●	●●			●	●●	●	●●
7,6	n	●●		●	●	●●	●●	●			●		●

● Recommended ●● Highly recommended

Solvent Based Systems

DEFOAMERS

Product	Type	VOC free (2004/42/EC)	Incorporation
AGITAN DF 311 M	Mineral oil, few silicone		fair
AGITAN DF 6420	Mineral oil, few silicone		fair
FOAMTROL 110	Silicone compound	○	fair

DISPERSING AGENTS

Product	Type	Charge	Active content %	Solvent
EDAPLAN 397	Polyglycol esters	nonionic	100	-
EDAPLAN 710	Block copolymer	nonionic	30	Dicarboxylic acid ester
EDAPLAN 711	Block copolymer	nonionic	35	Butyl acetate
EDAPLAN 910	High molecular copolymer	anionic	100	-
EDAPLAN 915	High molecular copolymer	anionic	100	-
METOLAT LA 524	Fatty derivative copolymer	amphoteric	50	Xylene / Iso-butanol

WETTING & LEVELING AGENTS

Product	Type	Charge	Active content %	Solvent	Silicone free
METOLAT 355	Nonionic compounds	nonionic	100	-	○
METOLAT 388	Nonionic compounds	nonionic	100	-	○
EDAPLAN LA 402	Acrylic copolymer	anionic	50	Glycol ether	○
EDAPLAN LA 410	Organic modified polysiloxane	nonionic	100	-	
EDAPLAN LA 412	Organic modified polysiloxane	nonionic	100	-	
EDAPLAN LA 413	Organic modified polysiloxane	nonionic	100	-	

APE free	Inorganic pigments	Organic pigments	Carbon blacks	Transparent inorganic pigments	Fillers
○		●●			
○	●	●●	●		●
○	●	●●	●		●
○	●●	●●	●●		●●
○	●●	●●	●		●●
○	●●	●			●●

Solvent Based Systems

VOC free (2004/42/EG)	Substrate wetting	Leveling	Anti-cratering	Wetting of pigments & fillers	Gloss	Defoaming properties
○				●●		
○				●●		
		●	●		●	
○	●	●●	●●		●	●
	●	●●	●●		●	
	●	●●	●●		●	

○ Applicable ● Recommended ●● Highly recommended

Solvent Based Systems

Micronized Waxes

Solvent based wood coatings require a good chemical resistance and higher performance of its additives. Due to the high quality of CERETAN micronized waxes and LUBA-print wax dispersions our products are suitable for all solvent based systems. Our full wax range will help you improve properties such as abrasion resist-

ance, slip, surface appearance (gloss or matting) and hydrophobicity of your final coating.

The tables will show you the properties & effects of our waxes and wax dispersions in your coating formulation.

MICRONIZED WAXES

Product	Wax type	Particle size		Drop point °C
		D ₉₉ µm	D ₅₀ µm	
CERETAN ME 0825	Polyethylene	25	8	110–118
CERETAN ME 1620	Polyethylene	20	6	122–130
CERETAN ME 1715	Polyethylene	15	7	122–130
CERETAN MM 8015	Montanester	15	5	90–98
CERETAN MM 8920	Modified Montan	20	7	99–107
CERETAN MP 2120	Polypropylene	20	10	156–164
CERETAN MX 2919	Functional blend	19	9	140–146
CERETAN MX 2922	Functional blend	22	9	138–146
CERETAN MX 9720	Functional blend	20	8	138–146
CERETAN MX 9820	Polyolefin	20	7	111–119

Coated Waxes

Our latest technology enables us to coat our micronized waxes! Coating the surface with special solid materials offers additional benefits. Currently we offer a product providing diamond-like surface hardness, a silica coated wax for improved matting efficiency and a PTFE coated

wax for excellent scratch resistance. You do not need to purchase additional and expensive additives, we can offer almost everything from a single source.

COATED WAXES

Product	Wax type	Coating	Particle size		Drop point °C
			D ₉₉ µm	D ₅₀ µm	
CERETAN MPS 3120	Polypropylene	Silica	20	6	156–164
CERETAN MXD 3920	Functional blend	Diamond-like hardness	20	7	138–146
CERETAN MXF 9820 D	Polyolefin	PTFE	20	8	111–119 (PTFE: 320–340*)
CERETAN MXS 3815	Functional blend	Silica	15	6	105–120

* = Melting Point

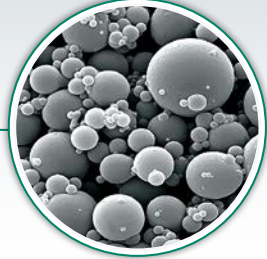
CERETAN – micronized waxes

Our micronized waxes provide numerous advantages compared to traditional air milled waxes.



Air milled waxes

The sphere makes the difference.



Spray micronized waxes

Antiblocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●	●	●●	●●	●
●	●	●	●	●●	●●	●
●	●	●		●	●●	●
●	●	●	●	●	●●	●
●●	●●	●●	●	●●	●	●
●●	●●	●●	●●	●●	●●	
●●	●●	●●	●●	●●	●●	
●●	●●	●●	●●	●●	●●	
●●	●●	●	●	●	●●	●
●	●	●	●	●	●	●

Solvent Based Systems

CERETAN coated waxes combine the advantages of micronized waxes with those of the respective coating material. The coating is homogeneously distributed on the surface of the wax particle. We can offer combined benefits of two materials in one product.

Antiblocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●●		●●	●●	
●	●	●		●●	●	●
●●	●	●	●	●●	●●	●
●	●	●●	●	●	●	●

● Recommended ●● Highly recommended

Solvent Based Systems

Wax Dispersions and Emulsions

Being an expert for wax additives our technical service team will help you improve the surface properties of your products.

In close cooperation with you, our modern laboratory and our staff are at your disposal to develop and formulate wax dispersions that meet your specific needs and provide the desired effects in your coating systems. The special service is available to you at all times.

WAX DISPERSIONS AND EMULSIONS

Product	Wax type	Solvent	Solid content %	Particle size	
				D ₉₈ µm	D ₅₀ µm
LUBA-print 103/A-neu	Zinc stearate	Butyl acetate	24	10	4
LUBA-print 301/K-2	Polyethylene	Butyl acetate	40	20	7
LUBA-print 346/F	EVA-Copolymer	Hydrocarbon, Butyl acetate, Isobutanol	15	–	–
LUBA-print 501/XB	Polyethylene	Xylene, Butyl acetate	10	9	3
LUBA-print 582/E	Functional blend	Butyl acetate	12	–	–
LUBA-print 706/F	Polyethylene / Silica	Butyl acetate	18	30	9
LUBA-print 852/PM	Polyethylene	Xylene, Butyl acetate	10	12	6
LUBA-print 887/K	Carnauba	Hydrocarbon	20	12	5
LUBA-print 973	Polyethylene	Xylene, Solvent naphtha light, Butyl acetate	15	12	5
LUBA-print B 15/DB	Polyethylene	Hydrocarbon, n-Butyl acetate	15	10	5
LUBA-print B 15/XB	Polyethylene	Xylene, Butyl acetate	15	13	5
LUBA-print C 10/XB	Amide	Xylene, Butyl acetate	10	21	9
LUBA-print T-152/D30	Functional blend	Hydrocarbon	20	–	–
LUBA-print T-152/D60	Functional blend	Hydrocarbon	20	–	–

* = Drop Point

Melting range °C	Antiblocking	Hydrophobicity	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip	Special properties	Exterior	Furniture coatings	Parquet	Window frame coatings
121-127	●	●	●		●			Sandability	●●	●●	●●	●
103-114	●●		●	●	●	●●	●	Silky gloss / touch	●●	●●	●	●●
88-98						●	●	Antisetling	●●	●	●●	●
109-115	●				●	●●	●	Antisetling	●●	●●	●	●●
109-117*	●		●	●●		●	●●		●●	●●		●
105-111	●		●●		●	●●			●●	●●	●●	●●
130-136	●●		●	●	●	●●	●		●	●		
87-93	●		●	●	●	●	●●		●	●●	●	●●
124-134	●		●●	●	●	●●	●	Antisetling	●●	●	●●	●
105-115	●		●●		●	●●	●		●●	●●	●	●●
105-115	●		●●		●	●●	●		●●	●●	●	●●
147-153	●●		●●	●	●	●	●		●●	●	●●	●●
98-106*	●	●●		●		●	●●	Antisetling	●●			●●
98-106*	●	●●		●		●	●●	Antisetling	●●			●●

● Recommended ●● Highly recommended

Solvent Based Systems

Radiation Cured Systems

Micronized Waxes

UV systems are mainly used in furniture and industrial floor coatings. They can be formulated at low emission and need less energy for film formation and cross linking. Shortening application cycles and increasing speed

of bands are major demands. CERETAN micronized waxes and LUBA-print wax dispersions offer good temperature stable antiblocking and an improved durability.

MICRONIZED WAXES

Product	Wax type	Particle size		Drop point °C
		D ₉₉ µm	D ₅₀ µm	
CERETAN ME 0825	Polyethylene	25	8	110–118
CERETAN ME 1715	Polyethylene	15	7	122–130
CERETAN MO 3220 New	Oxidized polyethylene	20	7	104–112
CERETAN MO 4920	Polar Fischer-Tropsch	20	7	106–114
CERETAN MP 2120	Polypropylene	20	10	156–164
CERETAN MX 2919	Functional blend	19	9	140–146
CERETAN MX 2922	Functional blend	22	9	138–146
CERETAN MX 9720	Functional blend	20	8	138–146

Coated Waxes

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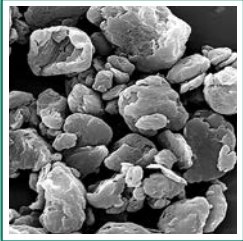
COATED WAXES

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			D ₉₉ µm	D ₅₀ µm	
CERETAN MPS 3120	Polypropylene	Silica	20	6	156–164
CERETAN MXD 3920	Functional blend	Diamond-like hardness	20	7	138–146
CERETAN MXF 9820 D	Polyolefin	PTFE	20	8	111–119 (PTFE: 320–340*)
CERETAN MXS 3815	Functional blend	Silica	15	6	105–120

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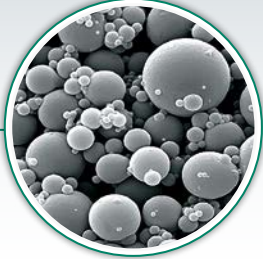
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Air milled waxes

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Spray micronized waxes

Anti-blocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●	●	●●	●●	●
●	●	●		●	●●	●
●	●	●	●	●	●	●
●	●	●●	●	●●	●●	●
●●	●●	●●	●●	●●	●●	
●●	●●	●●	●●	●●	●●	
●●	●●	●●	●●	●●	●●	
●●	●●	●	●	●	●●	●

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Anti-blocking	Haptics	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip
●	●	●●		●●	●●	
●	●	●		●●	●	●
●●	●	●	●	●●	●●	●
●	●	●●	●	●	●	●

● Recommended ●● Highly recommended

Radiation Cured Systems

Wax Dispersions and Emulsions

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WAX DISPERSIONS AND EMULSIONS

Product	Wax type	Solvent	Solid content %	Particle size	
				D ₉₈ µm	D ₅₀ µm
LUBA-print 309/C	Polyethylene	Oligotriacrylat	30	22	8
LUBA-print 709/P	Functional blend	Tripopylenglycoldiacrylate, Oligotriacrylat	18	10	5

DEFOAMERS

Product	Type	VOC free (2004/42/EC)	Incorporation
FOAMTROL 110	Silicone compound	○	fair

DISPERSING AGENTS

Product	Type	Charge	Active content %	Solvent
EDAPLAN 710	Block copolymer	nonionic	30	Dicarboxylic acid ester

* = Drop Point

Melting range	Antiblocking	Hydrophobicity	Matting	Metal marking	Rub & abrasion resistance	Scratch resistance	Slip	Special properties	Furniture coatings	Parquet
130–136	●		●		●●	●●	●		●	●
71–82 *	●	●●		●		●	●●		●●	

APE free	Inorganic pigments	Organic pigments	Carbon blacks	Transparent inorganic pigments	Fillers
○	●	●●	●		●

○ Applicable ● Recommended ●● Highly recommended

Ionogenicity	Haptics	Hydrophobicity	Matting	Rub & abrasion resistance	Value of friction**	Special properties	For using in dilution	Pure	Different surfaces	Exterior	Floor	Furniture coatings
-	●●	●●	●	●		Protection		●●	●●	●●		●●
-	●●	●●	●	●●	0,37	Protection		●●	●●	●●	●●	●●
n/a	●		●	●●	0,33	Silky gloss	●●	●●	●●		●●	●

n = nonionic

a = anionic

● Recommended

●● Highly recommended



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