

Technology Information



Dispersions for furniture coatings



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ALBERDINGK BOLEY in a nutshell

Leading international manufacturer of environmentally friendly water-based binders and oils with unique properties to refine, refurbish, bind and protect multiple types of substrates	Medium sized, privately owned company > 250 million Euro group turnover in 2021 > a partner to our customers 250 years	> 500 employees
Dynamic, Innovative and flexible Pioneers in biobased polymer dispersions	Dispersions: Acrylic, Vinyl acetate, Polyurethane and hybrid dispersions Oils: Linseed oil, Castor oil, Derivatives	Locations: Krefeld, Germany Kerpen, Germany Leuna, Germany Treviso, Italy Greensboro, USA Shenzhen, China Zhuhai, China

For more information about ALBERDINGK BOLEY and our product offerings, visit <u>www.alberdingk-boley.de.</u>

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Introduction

General furniture coatings can be either transparent or pigmented. Topcoats can also be divided into different technologies as listed below.

Furniture coatings are designed to protect the beauty of the wood from chemicals, stains and mechanical attack. ALBERDINGK BOLEY offers a wide range of products for all kind of furniture coatings.

Transparent furniture coatings

Our very broad portfolio of products for transparent coatings ranges from very low VOC to extremely hard polymers.

ALBERDINGK is a pioneer in offering hand fat resistant polymers and specialised in this field.

Sealers

ALBERDINGK products with excellent sanding properties and superior "Anfeuerung" – **ALBERDINGK® AC 3650** is the latest addition to the range with superior "Anfeuerung".

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2765	44.0- 46.0	10-300	8.0- 9.0	65	Excellent resistances
AC 3650	40.0- 42.0	50-500	7.0- 8.0	38	Superior "Anfeuerung"

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Stains

Alkaline soluble acrylics for stains help to prevent overlapping issues – **ALBERDINGK**[®] **LUR 3** is a linseed oil based polyurethane dispersion.

Alberdingk®- product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2575	44.0- 46.0	10-300	8.0- 9.0	65	Alkaline soluble acrylic
LUR 3	34.0- 36.0	20-400	7.5- 8.5	0	Based on 55% renewable resource (on solids)



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Topcoats

Our polymers are designed to work as sealer / topcoat in case of one product solutions, where a specific sealer is not an option for the applicator.

1-pack

Alberdingk®- product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2700	42.0- 44.0	50-500	7.0- 8.0	0	Ultra low VOC-demand, good sandability
AC 2712	46.0- 48.0	20-200	7.0- 8.0	48	Superior water- & fat- resistance, high hardness
AC 2782	47.0- 49.0	100-700	8.0- 9.0	22	Very high blocking resistance and fast drying
AC 3600	40.0- 42.0	20-200	7.5- 8.5	0	Very low co-solvent demand, superior blocking resistance, good acetone resistance
AC 3630	40.0- 42.0	50-500	8.0- 8.5	25	Universal product with excellent balance of properties
AC 3650	40.0- 42.0	50-500	7.0- 8.0	38	Economic, best "Anfeuerung"
AC 3660	39.0- 41.0	20-200	8.0- 9.0	55	Very hard acrylic, superior hand fat resistance
UC 90	34.0- 36.0	20-200	7.5- 8.5	35	Universal copolymer with very good blocking and chemical resistance
UC 8400	39.0- 41.0	20-200	7.0- 8.5	50	Hard copolymer, economic, with good balance of properties
U 9000	28.0- 30.0	50-1,000	7.0- 8.5	0	Most chemical resistant PUD, contains VOC

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1-pack / 2-pack

For 1-pack / 2-pack coatings we recommend products which have very good chemical resistance in 1-pack and reactivity to polyisocyanates.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2700	42.0- 44.0	50-500	7.0- 8.0	0	Ultra low VOC-demand, good sandability
AC 2712	46.0- 48.0	20-200	7.0- 8.0	48	Superior water- & fat- resistance, high hardness
AC 2742	47.0- 59.0	2,000- 4,000	7.5- 8.5	45	For 1-pack/2-pack coatings with very good chemical resistance

2-pack

ALBERDINGK hydroxy-functional primary acrylics are designed to exhibit very high chemical and mechanical resistance combined with a fast cure rate, thanks to the high molecular weight of the polymers.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 3770	46.0- 48.0	200-2,000	7.5- 8.5	80	Outstanding resistances and adhesion to multiple substrates
AC 3797	34.0- 36.0	20-500	7.5- 8.5	17	High chemical resistances
AC 3699	39.0- 41.0	50-500	7.0- 8.0	40	For high resistant, fast drying and blocking resistant 2-pack coatings, high OH content
AC 2592	34.0- 36.0	20-200	7.5- 8.5	0	For unscratchable and softfeel coatings with high chemical resistance

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Inherent matt

Inherent matt PUDs offer a superior combination of matting and mechanical resistance (burnishing resistance).

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
PUR-MATT 310	39.0- 42.0	750-2,000	7.0- 9.0	10	As blending partner for softfeel coatings (e.g. with AC 2592)
PUR-MATT 910	34.0- 36.0	20-2,000	7.0- 9.0	15	Hard and chemical resistant matt and ultra matt coatings

Softfeel

Haptic effect coatings with high chemical resistance can be formulated with **ALBERDINGK® AC 2592** and **ALBERDINGK® PUR MATT 310**.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
PUR-MATT 310	39.0- 42.0	750-2,000	7.0- 9.0	10	As blending partner for softfeel coatings (e.g. with AC 2592)
AC 2592	34.0- 36.0	20-200	7.5- 8.5	0	Very low Tg acrylic with high chemical resistance

"Unscratchable" coatings

ALBERDINGK® AC 2592 can be formulated into an unscratchable, matt coating thanks to its special polymer design.

Alberdingk [®] -	Solids	Viscosity	pH-	MFFT	Features
product	[%]	[mPas]	value	[°C]	
AC 2592	34.0- 36.0	20-200	7.5- 8.5	0	In combination with CAPA [™] 3031 for unscratchable 2- pack coatings

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UV-cure

ALBERDINGK offers a wide range of products for UV curing coatings – from medium to high reactivity as well as different molecular weight levels.

Alberdingk®- product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
LUX 220	34.0- 36.0	20-200	7.0- 9.0	0	Highest Mw PUD, hard before cure, superior chemical resistance
LUX 250	39.0- 41.0	10-500	6.5- 8.0	0	Universal UV cure PUD, easy to wash before UV, workhorse product
LUX 399	44.0- 46.0	10-500	6.5- 7.5	0	Very versatile, high film- build, reemulsifiable
LUX 484	36.0- 38.0	20-200	7.0- 8.5	0	Very high Mw PUD with superior mechanical resistance, easy matting



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Pigmented furniture coatings

Primer

Primers for pigmented coatings shall reduce fibre rising or swelling of the substrate by creating a perfect water barrier. Primer based on **ALBERDINGK® AC 2742** help to improve stain and chemical resistance of a complete system.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 5503	49.0- 52.0	1,000- 5,000	7.0- 9.0	0	Very low fibre rising on MDF
AC 2403	46.0- 48.0	200-2,000	8.0- 9.0	16	Water barrier, prevents swelling of MDF when overcoated
AC 2742	47.0- 49.0	2,000- 4,000	7.5- 8.5	45	For high resistant topcoats

Stain locking products

ALBERDINGK stain locking products are using a barrier to ensure perfect finishes without the use of heavy metals or cationic materials.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2403	46.0- 48.0	200-2,000	8.0- 9.0	16	Water barrier, prevents fibre rising on e.g. MDF
AC 2420	46.0- 48.0	200- 3,000	8.0- 9.0	20	Harder version of AC 2403, optimized for galvanized surfaces
AC 5401	48.0- 50.0	200-1,500	8.0- 9.0	5	Economic, good stain blocking properties

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Topcoats

Topcoat polymers for pigmented systems have a specific design to ensure excellent pigment wetting/binding which helps to achieve superior stain resistances. **ALBERDINGK® AC 2765** is suitable for IKEA R2 and R0 resistant 1-pack topcoats when applied on top of **ALBERDINGK® AC 2742** based primers.

1-pack

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2714	43.0- 45.0	30-300	8.0- 9.0	50	Good stain resistance, high hand fat resistance
AC 2742	47.0- 49.0	2,000- 4,000	7.5- 8.5	45	Excellent stain & coffee resistance, hard and blocking resistant
AC 2765	44.0- 46.0	10-300	8.0- 9.0	65	Highest stain resistance level, economic, for IKEA R0 and R2 systems
UC 8400	39.0- 41.0	20-200	7.0- 8.5	50	Good stain and mechanical resistance, high hand fat resistance
UC 8600	39.0- 41.0	20-200	7.0- 8.5	48	Very good stain & coffee resistance, very hard, scratch and blocking resistant



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1-pack / 2-pack

Our 1-pack / 2-pack topcoat resins offer excellent stain and solvent resistance in combination with superior mechanical properties.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 2712	46.0- 48.0	20-200	7.0- 8.0	48	Superior water- & fat- resistance, high hardness
AC 2765	44.0- 46.0	10-300	8.0- 9.0	65	Highest stain resistance level, economic, for IKEA R0 and R2 systems
UC 8600	39.0- 41.0	20-200	7.0- 8.5	48	Very good stain & coffee resistance, very hard, scratch and blocking resistant

2-pack

The high Mw functional acrylic and polyurethane dispersions are suitable for very high resistant coatings used in heavy duty applications.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
AC 31	49.0- 51.0	300-2,000	7.0- 8.0	40	Fast drying, excellent chemical resistances, weathering resistant
AC 3770	46.0- 48.0	200-2,000	7.5- 8.5	80	Outstanding resistances and adhesion to multiple substrates
AC 3797	34.0- 36.0	20-500	7.5- 8.5	17	High chemical resistances
UC 8600	39.0- 41.0	20-200	7.0- 8.5	48	Very good stain & coffee resistance, very hard, scratch and blocking resistant

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UV-cure

ALBERDINGK[®] LUX-products for pigmented systems are optimized for improved through cure even in difficult colours.

ALBERDINGK[®] LUX 220 and ALBERDINGK[®] LUX 265 are particularly recommended for very high resistance.

Alberdingk [®] - product	Solids [%]	Viscosity [mPas]	pH- value	MFFT [°C]	Features
LUX 220	34.0- 36.0	20-200	7.0- 9.0	0	Highest chemical resistance, excellent depth-cure
LUX 250	39.0- 41.0	10-500	6.5- 8.0	0	Workhorse UV PUD for general pigmented coatings
LUX 481	39.0- 41.0	10-500	7.0- 8.0	0	Excellent stain resistance in pigmented coatings
LUX 482	43.0- 45.0	10-500	6.5- 8.0	0	Economic resin for coloured topcoats, high chemical resistance

Isocyanate-free x-linker

Last update

ALBERDINGK® ALBOlink CD 20 can replace polyisocyanates in PUDs and copolymers where customers are used to use 9:1 or 10:1 crosslinking ratios.

Alberdingk®-	Solids	Viscosity	pH-	Features
product	[%]	[mPas]	value	
ALBOlink CD 20	19.0- 21.0	20-200	6.5-9.0	Crosslinker for PUDs and copolymers, replaces isocyanates in 9:1 or 10:1 systems

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