Product Information

Alberdingk® AC 3660 VP

What is the resin's nature?

Hard, multi-phase, self-crosslinking pure acrylic dispersion.

Technical data:

Solids content:	39 - 41%
pH-value:	8.0 - 9.0
Viscosity:	20 - 200 mPas
MFFT:	approx. 55°C

Why has the resin been developed?

- Superior in-can-clarity
- Outstanding wood warming (“Anfeuerung”)
- Very high stain & chemical resistance (DIN 68861 1B)
- Suitable for very matt finishes without compromising chemical resistance
- Very fast drying
- Quickly sandable
- Outstanding early block resistance
- Excellent scratch resistance
- Superior pore wetting
- Very long open time
- “Wet look effect” on concrete substrates

What is the suggested field of application?

- Furniture coatings
- Parquet coatings
- DIY varnishes & enamels
- Concrete coatings

Alberdingk Boley GmbH | Düsseldorfer Str. 53 | 47829 Krefeld | Germany
Phone +49 2151 528-0 | Fax+49 2151 573643 | info@alberdingk-boley.de | www.alberdingk-boley.de

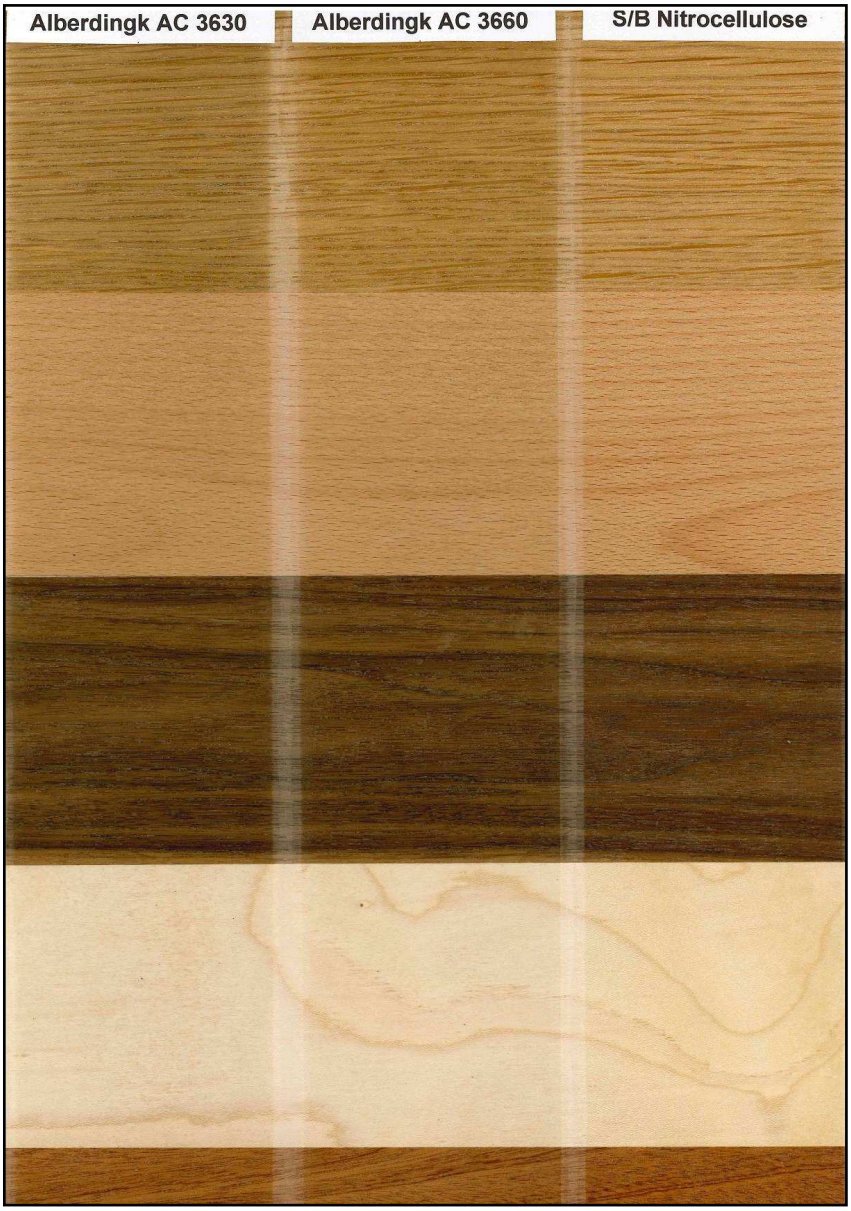
Alberdingk Boley, Inc. | Greensboro, NC| USA | www.alberdingkusa.com
Alberdingk Resins (Shenzhen) Co., Ltd. | Shenzhen | P. R. China | www.alberdingkchina.com

Product Information

Alberdingk® AC 3660 VP

Wood warming (Anfeuerung)

Comparison with s/b nitrocellulose



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Product Information

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Suitable raw materials

Defoamers:

Byk 024 (BYK Chemie)
Byk 028 (BYK Chemie)
Drewplus T-4201 (Ashland)
Byk 1615 (BYK Chemie)
Tego Foamex 825 (Evonik Tego Chemie)
Tego Foamex 822 (Evonik Tego Chemie)
Tego Airex 902 (Evonik Tego Chemie)
Byk-LP D 22709 (BYK Chemie)

Substrate wetting agents:

Byk 346 (BYK Chemie)
Tego Wet 280 (Evonik Tego Chemie)
Byk 349 (BYK Chemie)
Surfynol 104 DPM (Air Products)
Tego Wet KL 245 (Evonik Tego Chemie)

Coalescing agents:

Dowanol DPM (Dow Chemical)
Dowanol DPnB (Dow Chemical)
Butyl Diglycol, BDG (BASF)
Butyl Glycol, BG (BASF)
Dowanol DPnP (Dow Chemical)

Dispersants:

ZetaSperse 3600 (Air Products)
SilcoSperse HLD-5 (Silcona)
Disperbyk 199 (BYK Chemie)
Edaplan 490 (Münzing Chemie)

Matting agents:

Acematt TS 100 (Evonik)
Ceraflour 1000 (BYK Cera)
Acematt EXP 3300 (Evonik)
Ceraflour 38 RC 1468 (BYK Cera)

Rheology control additives:

Aquaflow XLS 530 (Ashland)
Tafigel PUR 40 (Münzing)
Byk 7420 (BYK Chemie)
Optiflo T-1000 (BYK Chemie)

Wax emulsions:

Aquacer 539 (BYK Cera)
Aquacer 513 (BYK Cera)

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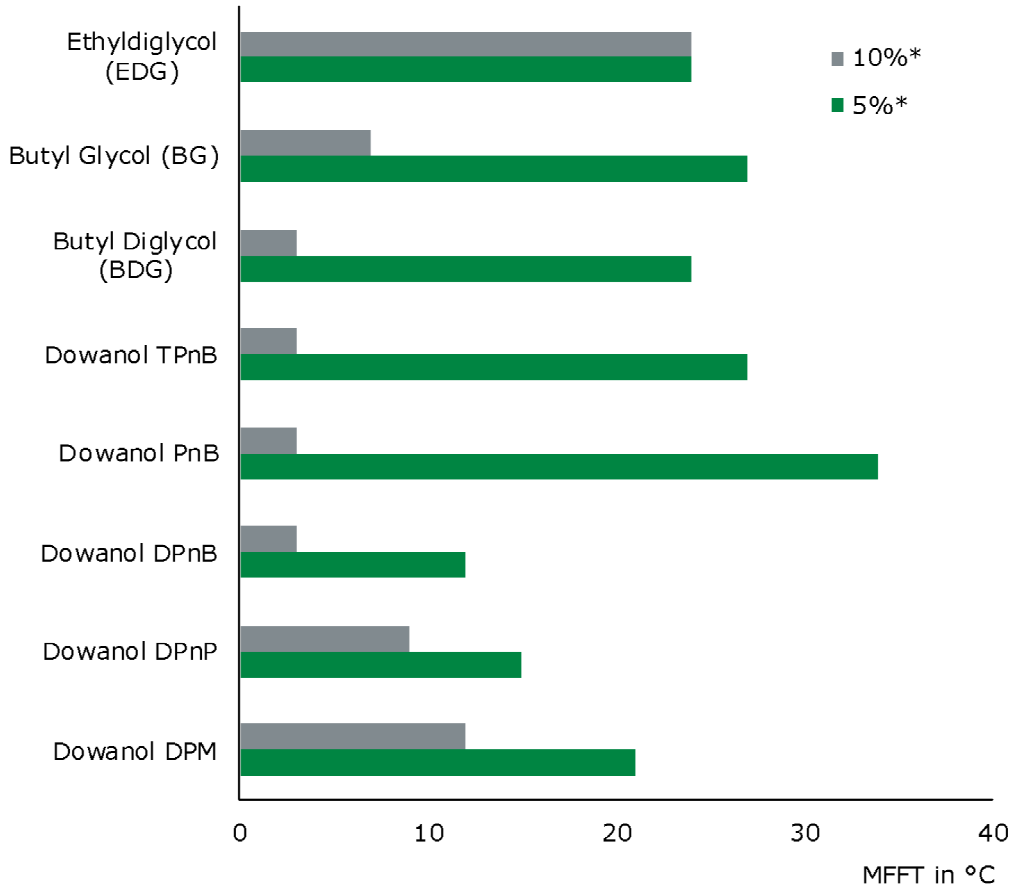
Alberdingk® AC 3660 VP

MFFT-Reduction



*premixed with water (1:1)

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Product Information

Alberdingk® AC 3660 VP

Formulation Proposal

FP 3660-01 stick to everything paint, white, multipurpose

Pos.	Raw Material	Amount	Supplier
1	Water (deion.)	6.30	
2	Edaplan 490	1.20	Münzing Chemie
3	Byk 024	0.30	BYK Chemie
4	Kronos 2190	20.70	Kronos Titan
	Disperse with high shear rate for 10 min., then proceed with pos. 5 - 12		
5	**ALBERDINGK® AC 3660 VP**	**26.20**	**Alberdingk Boley**
6	**ALBERDINGK® AC 2403**	**26.20**	**Alberdingk Boley**
7	Byk 024	0.80	BYK Chemie
8	Byk 349	0.40	BYK Chemie
9	Water (deion.)*	13.20	
10	Texanol*	3.00	Eastman
11	Ceraflour 38 RC 1468	1.00	BYK Cera
12	Optiflo T-1000	0.70	BYK Chemie
	Total	**100.00**	

*Premix Pos. 9 + 10 and add it to the base under stirring

MFFT of the pure binder mix: approx. 29°C

In order to obtain a lower amount of co–solvents, we suggest to change the mixing ratio of ALBERDINGK AC 2403 & AC 3660 VP to 60:40.

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Product Information

Alberdingk® AC 3660 VP

Mechanical Resistance

FP 3660-01 stick to everything paint, white, multipurpose

Test	Substrates	Results*	Test Conditions
Adhesion (according to ISO 2409)	ABS	GT 1	Cross hatch cut, Tape peel-off
	PS	GT 2	
	PVC	GT 1	
	Steel	GT 1	
	Aluminium	GT 1	
	Galvanized steel	GT 1	
	Tiles	GT 2	

* GT 0 = best / Gt 5 = worst

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Product Information

Alberdingk® AC 3660 VP

Chemical Resistance*

FP 3660-01 stick to everything paint, white, multipurpose

Chemical resistance on melamine (1 x 150µm)

Test Chemicals	Test Duration	Test Results**
Ethanol (48%)	1h	3
NH_4OH (10%)	1 min.	4
Water (deion.)	16h	4
Coffee (4%)	16h	3
Red wine	16h	3
Fatty acid	1h	3
	16h	2

**5 = best / 0 = worst

Test features

Feature	Test Conditions	Test Results
Gloss (20° / 60° / 85°)	300µm wet film on opacity chart	11 / 39 / 53
Pendulum hardness according to König	after 7 days	approx. 32 s

*tested according to EN 12720

the fatty acid test simulates the resistance of the film to human hand fat or hand lotions

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Product Information

Alberdingk® AC 3660 VP

Formulation Proposal

FP 3660-02 concrete flooring, 1K

Pos.	Raw Material	Amount	Supplier
1	**ALBERDINGK® AC 3660 VP**	**32.00**	**Alberdingk Boley**
2	Drewplus T-4202	0.50	Drew Ashland
3	Disperbyk 199	1.00	BYK Chemie
4	Fintalc M 15	15.50	Mondo Minerals
5	Sipernat 820 A	1.00	Evonik Chemie
6	Kronos 2190	5.00	Kronos Titan Inc.
	Disperse with high shear rate for 20 min.		
7	**ALBERDINGK® AC 3660 VP**	**32.00**	**Alberdingk Boley**
8	Dowanol DPM*	2.00	Dow Chemical
9	Dowanol DPnB*	4.50	Dow Chemical
10	Water (deion.)*	3.10	
11	Drewplus T-4202	0.20	Drew Ashland
12	Byk 349	0.20	BYK Chemie
13	Optiflo T-1000	3.00	BYK Chemie
	Total	**100.00**	

*Premix Pos. 8 - 10 and add it to the base under stirring

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Product Information

Alberdingk® AC 3660 VP

Chemical Resistance*

FP 3660-02 concrete flooring, 1K

Chemical resistance on wood (2 x 150µm)

Test Chemicals	Test Duration	Test Results**
Ethanol (48%)	1h	3
NH_4OH (1%)	1min.	4
Water (deion.)	16h	4
Coffee (4%)	16h	3
Red wine	16h	4
Fatty acid	1h	5
	16h	5

**5 = best / 0 = worst

Test features

Feature	Test Conditions	Test Results** (after 3d 50°C)
Hot tire resistance	internal Alberdingk test methods	4

**5 = best / 0 = worst

*tested according to EN 12720

the fatty acid test simulates the resistance of the film to human hand fat or hand lotions

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Product Information

Alberdingk® AC 3660 VP

Formulation Proposal

FP 7400-03 1pack and 2pack, parquet flooring

Pos.	Raw Material	Amount	Supplier
1	**Alberdingk® U 7400 VP**	**56.00**	**Alberdingk Boley**
2	**Alberdingk® AC 3660 VP**	**24.00**	**Alberdingk Boley**
3	Byk 024	0.50	BYK Chemie
4	Dowanol DPM	4.00	Dow Chemical
5	Dowanol DPnB	1.00	Dow Chemical
6	Water (deion.)	12.00	
7	Acematt TS 100	1.00	Evonik
8	Byk-LP D 22709	0.50	BYK Chemie
9	Byk 349	0.30	BYK Chemie
10	Rheolate 212	0.70	Elementis
	Total	**100.00**	

Premix Pos. 4 - 6 before use

Crosslinking:

As crosslinker we suggest to add 10.00% of the following blend:

- 50.0% Bayhydur 305
- 10.0% Desmodur N 3200
- 40.0% Propylencarbonate

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Product Information

Alberdingk® AC 3660 VP

Chemical Resistance*

FP 7400-03 1pack and 2pack, parquet flooring

Test Chemicals	Test Duration	Test Results** 2pack
Ethanol (48%)	1h	5
NH_4OH (10%)	1min	5
Water (deion.)	16h	5
Coffee (4%)	16h	4
Tea (1%)	16h	5
Red wine	5h	4
Cola	16h	5
Fatty acid	1h	5
	5h	5
	16h	5

**5 = best / 0 = worst

Test features

Feature	Test Conditions	Test Results 2pack
Gloss (20° / 60° / 85°)	300µm wet film on opacity chart	32 / 69 / 79
Taber Abrasion	CS 17 1000 cycles	approx. 65mg

*tested according to EN 12720

the fatty acid test simulates the resistance of the film to human hand fat or hand lotions

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Product Information

Alberdingk® AC 3660 VP

Formulation Proposal

FP 3660-03 pigmented furniture coatings

Pos.	Raw Materials	Amount	Supplier
1	**ALBERDINGK® AC 3660 VP**	**46.90**	**Alberdingk Boley**
2	**ALBERDINGK® AC 2403**	**13.30**	**Alberdingk Boley**
3	Byk 024	0.80	BYK Chemie
4	Dowanol DPnB	8.00	Dow Chemical
5	Water (deion.)	3.50	
6	Pigment Paste white*	25.00	Quantity of TiO2: 18.75%
7	Luba Print 154/S	2.00	L.P. Bader
8	Byk 346	0.30	BYK Chemie
9	Tafigel PUR 45	0.20	Münzing Chemie
	Total	**100.00**	

Premix pos. 3 + 4 before use

*Pigment Paste Formulation 3600

Pos.	Raw Materials	Amount	Supplier
1	Water (deion.)	17.20	
2	ZetaSperse 3600	3.00	Air Products
3	Byk 024	0.40	BYK Chemie
4	Kronos 2190	75.00	Kronos Titan
5	Water (deion.)	4.20	
6	Byk 7420	0.20	BYK Chemie
	Total	**100.00**	

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Disperse for 20 min. under a high shear rate

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Product Information

Alberdingk® AC 3660 VP

Chemical Resistance*

FP 3660-03 pigmented furniture coatings

Test Chemicals	Test Duration	Test Results**
Ethanol (48%)	1h	3
NH_4OH (10%)	1h	4
Water (deion.)	16h	5
Coffee (4%)	1h	5 dE <0.80
Red wine	1h	5
Fatty acid	1h	4

**5 = best / 0 = worst

Test Features

Feature	Test Conditions	Test Results
Gloss (20° / 60° / 85°)	300µm wet film on opacity chart	6 / 28 / 43

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Product Information

Alberdingk® AC 3660 VP

Formulation Proposal

FP 3660-04 furniture coatings, satin

Pos.	Raw Material	Amount	Supplier
1	**Alberdingk® AC 3660 VP**	**67.50**	**Alberdingk Boley**
2	Byk 1615	0.80	BYK Chemie
3	Byk 346	0.30	BYK Chemie
4	Butylc Glycol (BG)	8.00	BASF
5	Dowanol DPnB	2.00	Dow Chemical
6	Water (deion.)	16.60	
7	Ceraflour 38 RC 1468	0.80	BYK Chemie
8	Ultralube 816	3.00	Keim Additec
9	Tafigel PUR 40	1.00	Münzing Chemie
	Total	**100.00**	

Premix Pos. 4 - 6 before use

Solids: approx 30.5%
Viscosity: approx. 40 sec. / DIN4mm

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Product Information

Alberdingk® AC 3660 VP

Chemical Resistance*

FP 3660-04 furniture coatings, satin

Test Chemicals	Test Duration	Test Results** 2pack
Ethanol (48%)	1h	3
NH_4OH (10%)	1min	4
Water (deion.)	16h	5
Coffee (4%)	16h	5
Tea (1%)	16h	5
Red wine	5h	5
Fatty acid	1h	5
	5h	5
	16h	5

**5 = best / 0 = worst

*tested according to EN 12720

the fatty acid test simulates the resistance of the film to human hand fat or hand lotions

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