



Wood Flooring

One stop shop for high quality solutions



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Outline

- WB binders for 2K formulations
- WB binders for 1K formulations
- WB binders for rad curable formulations
- Polymeric matting agents
- Rheology modifiers
- Crosslinkers
- Waxes



Binders for 2K formulations

ESACOTE[®] PU

ESACOTE® AC 301



- Hydroxylated AC emulsion
- APEO free
- Very good sandability



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	milky liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.0-8.0
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 2)	<500
Solid content, %:	39.0-41.0

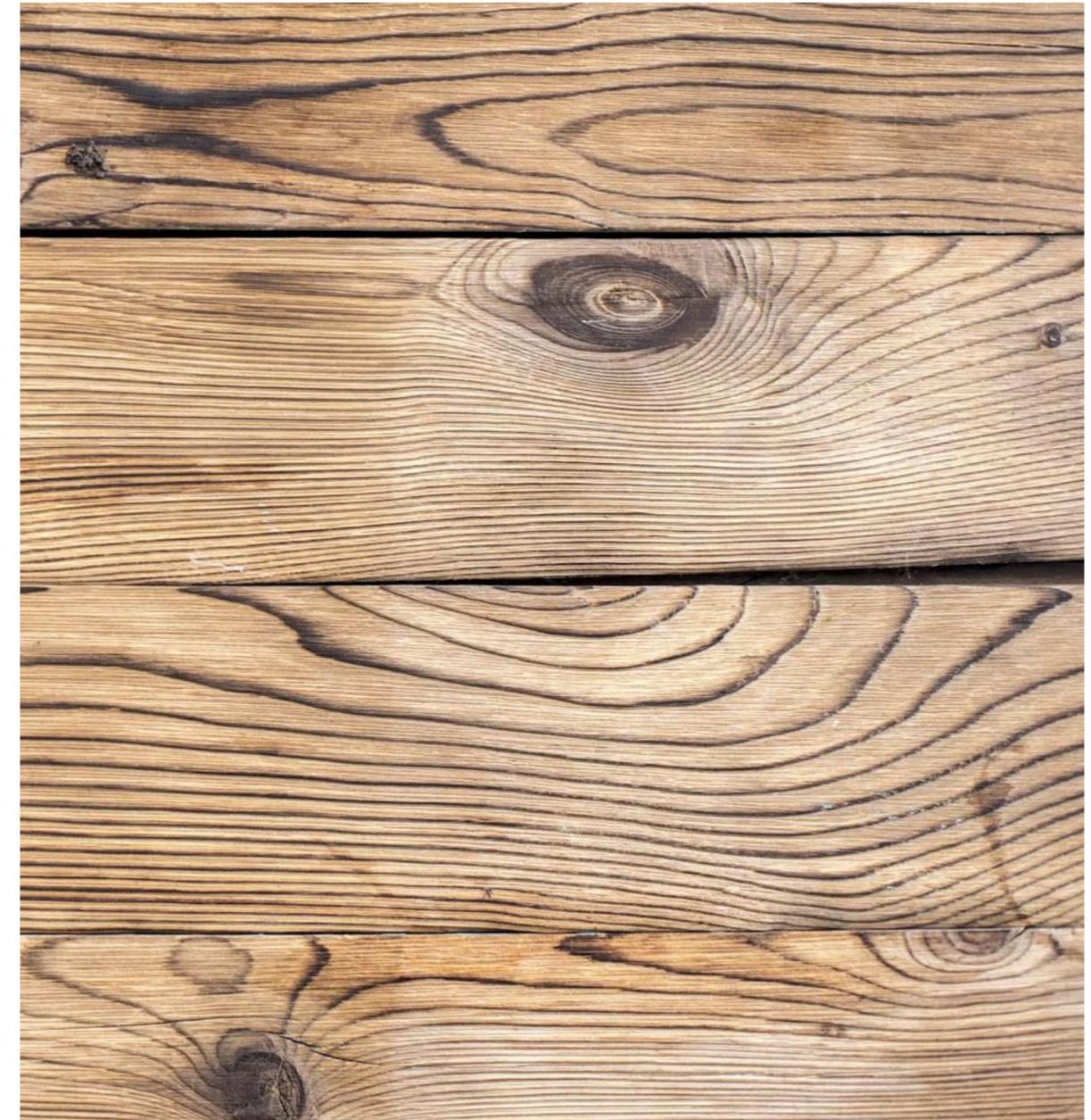
Product properties

Solvent content, % :	0
Density, @ 25°C g/ml:	~1.03
Minimal film forming temperature, °C:	~60
Koenig hardness (s)	~95
Hydroxyl content on solids (mg KOH/g):	~58
Film aspect:	tough, transparent and glossy

2K TRANSPARENT SEALER WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® AC 301	80.0
B1	Defoamer (BYK)	BYK 025	0.5
B2	Wetting agent (Münzing)	EDAPLAN 451	0.5
C1	Silica (Evonik)	ACEMATT TS 100	0.5
D1	Coalescent (DOW)	BUTYL CARBITOL	6.0
E1	Demi water	WATER	10.0
F1	Defoamer (Evonik)	TEGO AIREX 902 W N	0.5
G1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
H1	Demi water	WATER	5.0
I1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
Total			115.0

Solid Content ≈ 33.4%.



ESACOTE® PU 77



- Anionic PUD
- High gloss & clarity
- Good hardness development
- Mechanical & chemical resistances
- Good balance of elasticity & hardness
- Excellent flow & levelling



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	opalescent liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.00-9.00
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 2)	< 400
Solid content, %:	34-36

Product properties

Solvent content, % :	<0.5 (MEK)
Density, @ 25°C g/ml:	~1.04
Minimal film forming temperature, °C:	~35
Koenig hardness (s)	~105
Film aspect:	tough, transparent and glossy



GLOSSY 2K TOP COAT WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® PU 77	80.0
B1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	2.0
B2	Demi water	WATER	2.0
C1	Wetting agent (Münzing)	EDAPLAN 451	0.5
D1	Defoamer (Evonik)	TEGO 825	0.5
E1	Defoamer (BYK)	BYK 025	0.5
F1	Surface additive (BYK)	BYK 333	0.3
G1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
H1	Demi water	WATER	12.2
I1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
Total			110.0

Solid Content ≈ 28%.

Chemical and stain resistance EN 12720 – 2K

Formulation	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic Acid 10% 1h	Ketchup 1h	Coffee (40g/L) 1h	Mustard 1h	Shoe polish 1h
F03W17-2021 2K PU 77	5	5	5	5	5	5	5

Formulation	MEK 10 min	Acetone 10 min	Paraffin Oil	Water 1h	Water 8h	Water 16h
F03W17-2021 2K PU 77	1	2	5	5	5	5



NATURAL LOOK 2K WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® PU 77	60.0
B1	Inherently matt binder	ESACOTE® PU 980	15.0
C1	Microbeads	DECOSPHAERA® 8-20	10.0
D1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	3.0
D2	Demi water	WATER	9.0
E1	Wetting agent (Münzing)	EDAPLAN 451	0.5
F1	Defoamer (Evonik)	TEGO AIREX 902W	0.5
G1	Defoamer (BYK)	BYK 025	0.5
H1	Surface additive (BYK)	BYK 333	0.3
I1	Rheology modifier	VISCOLAM® PS 202 AIR	1.5
L1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
H1	Demi water	WATER	5.0
Total			115.0

Solid Content ≈ 33%
Ford cup n°4 ≈ 40"

Gloss	20°	60°	85°
F03W03-2023 2K	0.5	5.0	11.0

Chemical and stain resistance EN 13442 - 2K

Formulation	NH ₃ 10% 2 min	NH ₃ 10% 1h	Ethanol 48% - 1h	Acetic Acid 10% 1h	Coffee (40g/L) 2 min	Coffee (40g/L) 1h	Paraffin Oil 1h
F03W03-2023 2K	5	4	3	5	5	5	5
Formulation	Detergent 1h	Detergent 16h	Paraffin Oil	Water 1h	Water 8h	Water 16h	
F03W03-2023 2K	5	4	5	5	5	4	



ESACOTE® PU 148



- Anionic UAD
- High gloss & color retention
- Good hardness development
- Mechanical & chemical resistances
- Excellent flow & levelling



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	opalescent liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.0 - 9.0
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 1)	< 200
Solid content, %:	34.0-36.0

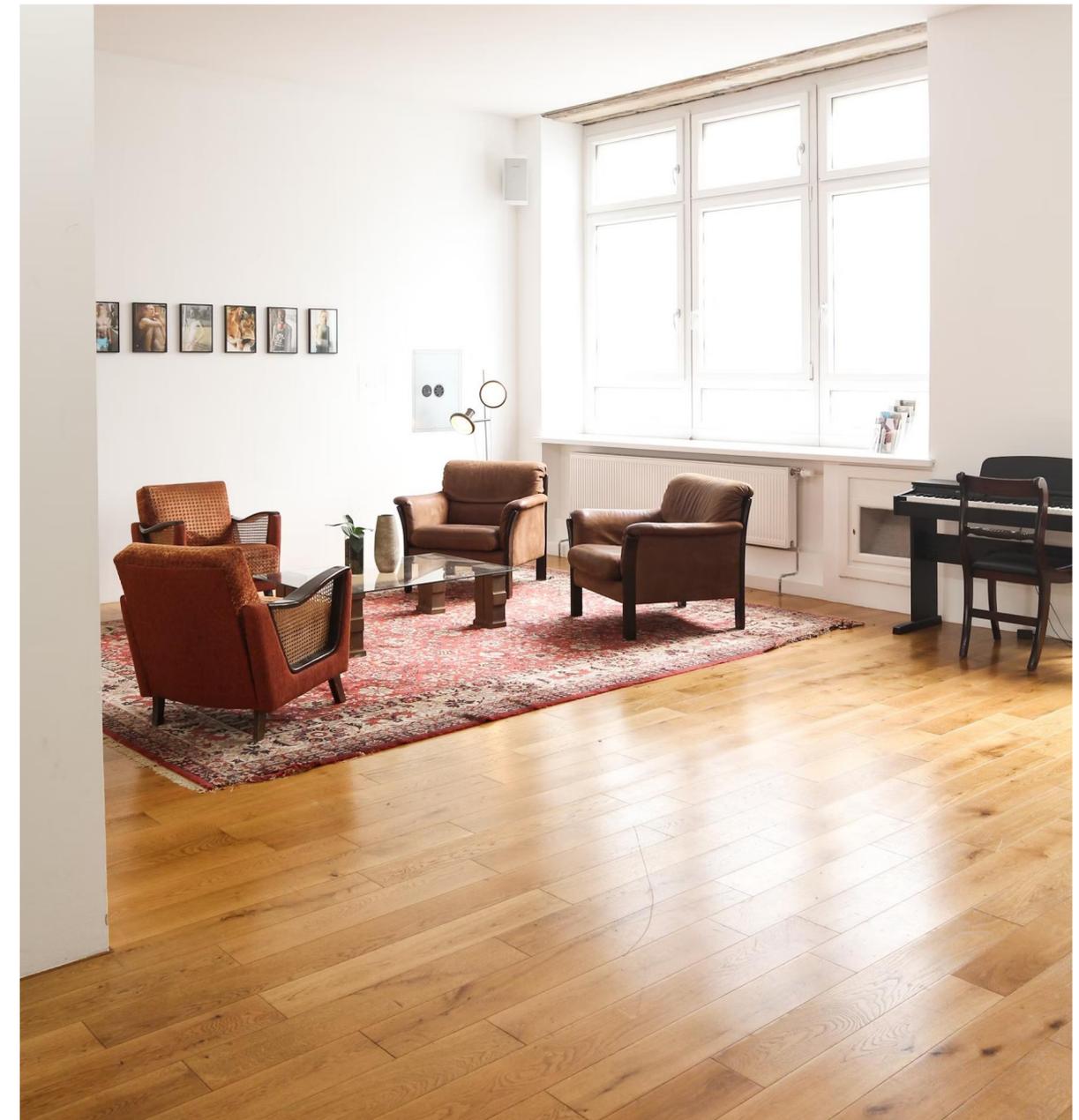
Product properties

Solvent content, %:	4.5% (DPGDME)
Density, @ 25°C g/ml:	~1.03
Minimal film forming temperature, °C:	~0
Koenig hardness (s)	~93
Film aspect:	tough, transparent and glossy

GLOSSY 2K TOP COAT WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® PU 148	85.0
B1	Coalescent (DOW)	BUTYLCARBITOL	2.0
B2	Demi water	WATER	10.86
C1	Wetting agent (Munzing)	EDAPLAN 451	0.5
D1	Defoamer (BYK)	BYK 025	1.0
E1	Surface additive (BYK)	BYK 333	0.1
F1	Rheology modifier	VISCOLAM® PS 202 AIR	0.54
G1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
Total			110.0

Ford cup n°4 ≈ 36"





GLOSSY 2K TOP COAT WOOD FLOORING FORMULATION

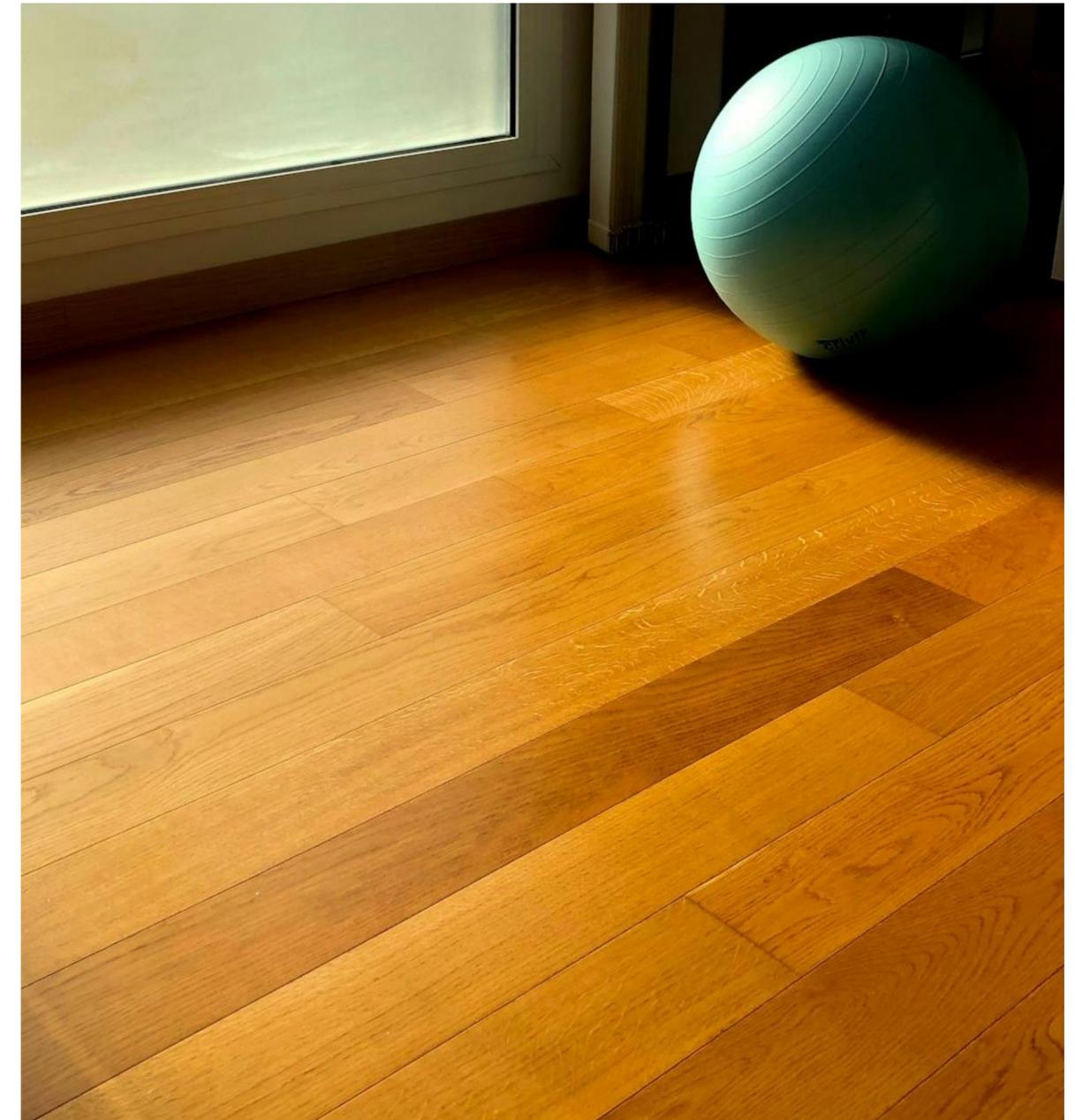
Veneered walnut 2K - Chemical and stain resistance EN 12720	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic Acid 10%- 1h	Acetone 10 min	MEK 10 min
F3W51-2021 - ESACOTE® PU 148	5	5	5	5	5
Veneered walnut 2K -Chemical and stain resistance EN 12720	Coffee 1h	Ketchup 1h	Mustard 1h	Shoe polish 1h	Water 1/6/16 h
F3W51-2021 - ESACOTE® PU 148	4	5	4-5	2	5/5/5
Solid beech 2K - Chemical and stain resistance EN 12720	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic Acid 10%- 1h	Aceton 10 min	MEK 10 min
F3W51-2021 - ESACOTE® PU 148	4	5	5	5	5
Solid beech 2K - Chemical and stain resistance EN 12720	Coffee (40g/L) 1h	Ketchup 1h	Mustard 1h	Shoe polish 1h	Water 1/6/16 h
F3W51-2021 - ESACOTE® PU 148	4	5	4-5	2	5/5/5
Solid Mohogany 2K - Hardness & Taber test	Gloss (60°)	Pencil Hardness	Taber test (CS10 - 1kg -1000 cycles)		
F3W51-2021 - ESACOTE® PU 148	42	HB	0.035		



MATT 2K TOP COAT WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® PU 148	65.0
B1	Inherently matt Binder	ESACOTE® PU 980	18.0
C1	Coalescent (DOW)	DOWANOL DPM	2.4
C2	Coalescent (DOW)	Butyl CARBITOL (butyl diglycol)	2.8
C3	Demi water	WATER	8.3
D1	Surface additive (BYK)	BYK 333	0.2
E1	Wetting agent (Münzing)	EDAPLAN 451	0.4
F1	Defoamer (Evonik)	TEGO FOAMEX 825	0.2
G1	Defoamer (BYK)	BYK 024	0.2
H1	Rheology modifier	VISCOLAM® PS 166 (diluted at 20%)	2.4
I1	Defoamer (Münzing)	AGITAN 760	0.1
J1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
K1	Demi water	WATER	5.0
Total			115.0

Solid Content ≈30%



ESACOTE® BIO 148



- Anionic UAD
- High gloss & color retention
- Good hardness development
- Mechanical & chemical resistances
- Excellent flow & levelling



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Sustainability features

ESACOTE® BIO 148 is made with raw materials from vegetal sources, obtained from plant-derived substances.

Biobased Carbon content C^{14}/C_{total} according to ASTM D6866: **33 % ± 3**

Typical values

Visual Appearance at 25 °C:	opalescent liquid
pH at 25°C (on supplied product, ASTM E 70):	7.0-9.0
Viscosity (cPs) (on supplied product, Brookfield RVT @ 25 °C, 50 rpm spindle 1):	< 200
Solid content, %:	34.0-36.0

Product properties

Solvent content, %:	4.5% (DPGDME)
Density, g/ml	~1.03
Minimal film forming temperature, °C:	~15
Film aspect	tough, transparent and glossy
Koenig Hardness (s)	~100

ESACOTE® PU 6535



- Anionic PUD
- High gloss & excellent clarity
- Mechanical & chemical resistances
- Excellent flow & levelling



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

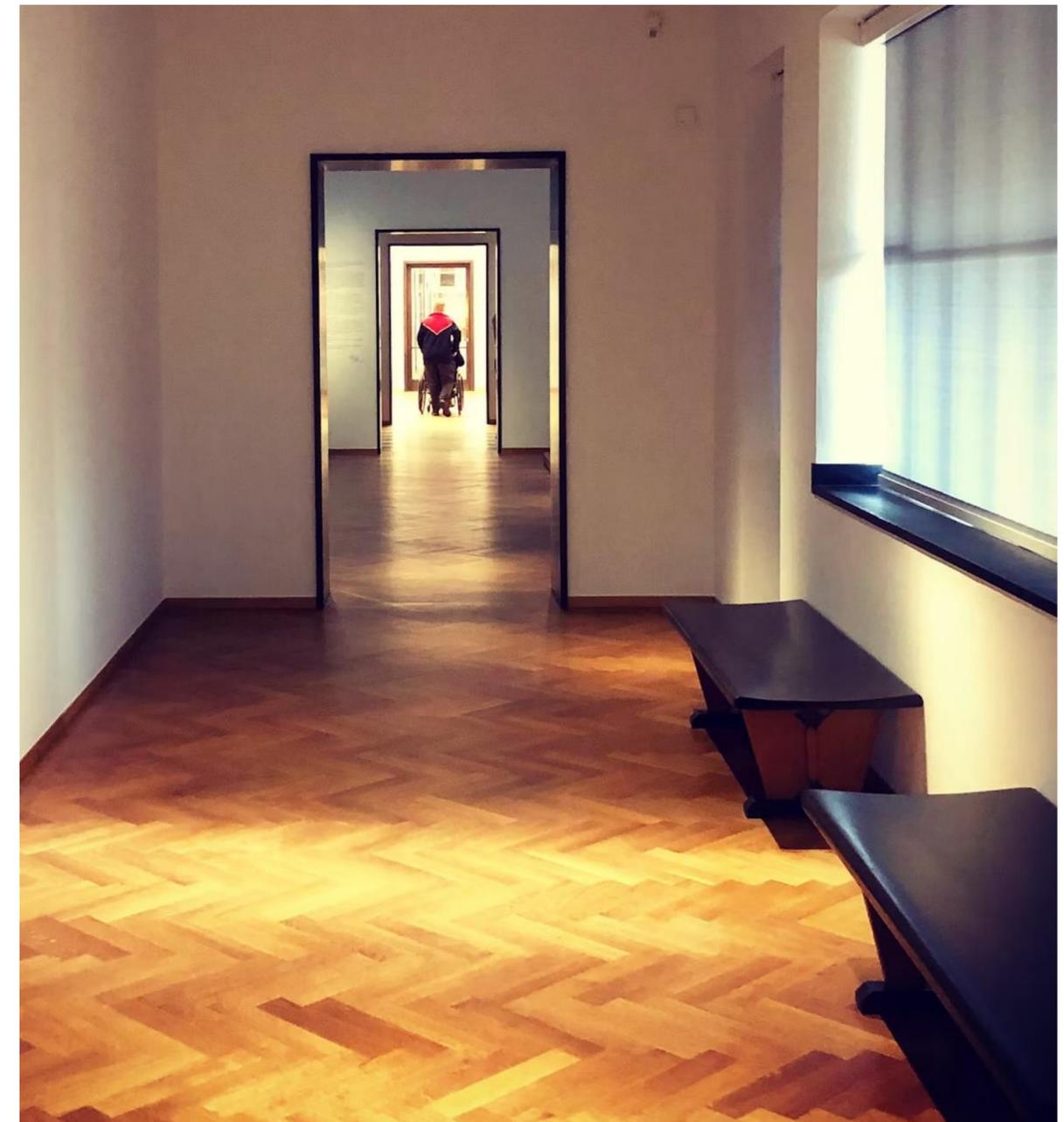
Appearance at 20 °C:	opalescent liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.0-9.5
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 2)	< 400
Solid content, %:	34.0-36.0

Product properties

Solvent content, %:	<1 (MEK)
Density, @ 25°C g/ml:	1.01 - 1.05
Minimal film forming temperature, °C:	~27
Koenig hardness (s)	~65
Film aspect:	tough, transparent and glossy

GLOSSY 2K TOP COAT WOOD FLOORING FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® PU 6535	80.0
B1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	4.0
B2	Demi water	WATER	4.0
C1	Wetting agent (Munzig)	EDAPLAN 451	0.5
D1	Defoamer (BYK)	BYK 025	1.0
E1	Defoamer (BYK)	BYK 011	0.5
F1	Wetting agent (BYK)	BYK 333	0.1
G1	Demi water	WATER	7.9
H1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
I1	Isocyanic crosslinker	CROSSLINKER 08 LM	10.0
Total			110.0





GLOSSY 2K TOP COAT WOOD FLOORING FORMULATION

Chemical and stain resistance EN 12720 - 2K on veneered walnut							
Formula	Olive oil 1h	Nivea cream 1h	Sun cream 1h	Cleaning solution 1h	Water 1h	Water 6h	Water 16h
PU 6535	5	5	5	5	5	5	5
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% 1h	Acetone 10 min	MEK 10 min	Paraffin 1h	
PU 6535	5	5	5	5	5	5	
Chemical and stain resistance EN 12720 - 2K on solid beech							
Formula	Coffee (40g/L) 1h	Coffee (40g/L) 16 h	Ketchup 1h	Mustard 1h	Shoe polish 1h	Betadine 1h	
PU 6535	4	3-4	5	5	2	2	
Formula	Gloss 20°/ 60°	Pencil Hardness		Taber test - CS 10 (ASTM D4060) 1Kg - 1000 cycles - weight loss (g)			
PU 6535	57 - 92	B - HB		0,029			

Binders for 1K formulations

ESACOTE[®] AC, ESACOTE[®] PU, ESACOTE[®] UA

ESACOTE® AC 202



- Anionic self X-linking PAC
- High gloss
- Quick drying
- Good sandability
- Excellent stain resistance
- Excellent adhesion on wood & melamine



- Suitable for sealers, primers and top coats
- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	milky liquid
pH: (at 25°C on supplied product, ASTM E 70):	7,0-8,0
Viscosity (mPa.s): (Brookfield RVT @ 25 °C, 20 rpm spindle 2)	< 500
Solid content, %:	42.0-44.0

Product properties

Solvent content, %:	0%
Minimal film forming temperature, °C:	~50
Density @ 25°C, g/ml	~1.05
Koenig hardness (sec):	~85
Film aspect:	transparent and glossy



PRIMER & TOP COAT 1K FORMULATIONS

PRIMER FORMULATION		Trade name	% w/w
A1	Binder	ESACOTE® AC 202	80.0
B1	Wetting agent (Munzig)	EDAPLAN 451	0.5
B2	Defoamer (BYK)	BYK 024	0.5
C1	Sanding agent	TS100	1.0
D1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	6.0
E1	Demi water	WATER	4.0
F1	Rheology modifier	VISCOLAM® PS 170 AIR (20% in water)	6.0
Total			100.0

TOP COAT FORMULATION		Trade name	% w/w
A1	Binder	ESACOTE® AC 202	80.0
B1	Wetting agent (Munzig)	EDAPLAN 451	0.5
B2	Wax	ADIWAX H05CW	3.0
C1	Silica	TS 100	1.5
D1	Defoamer (BYK)	BYK 024	0.5
E1	Coalescing agent	Butyl CARBITOL (BDG)	6.0
F1	Demi water	WATER	2.0
G1	Wetting agent (BYK)	BYK 349	0.4
H1	Defoamer (Munzig)	AGITA 760	0.1
I1	Rheology modifier	VISCOLAM® PS 170 AIR (20% in water)	6.0
Total			100.0

PRIMER & TOP COAT 1K FORMULATION

Gloss	60°
Primer + Top coat	35.0

Chemical and stain resistance EN 12720							
Formulation	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetone 10 min	MEK 10 min	Coffee 1h	Mustard 1h	Shoe polish 1h
AC 202	2	4	4	4	5	5	5

Chemical resistance EN 12720			
Formulation	H ₂ O 1h	H ₂ O 8h	H ₂ O 16h
AC 202	5	4	3





MATT & ANTI SCRATCH 1K FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® AC 202	70.0
B1	Microbeads	DECOSPHAERA® 8-20	10.0
C1	Wax	ADIWAX® H 30 F	3.0
D1	Coalescent (DOW)	Butyl CARBITOL (butyl diglycol)	5.0
D2	Water	WATER	6.8
E1	Wetting agent (BYK)	BYK 349	0.5
F1	Slip/mar resistance agent (Dow)	DOWSIL 56 (diluted 50% in water)	0.5
G1	Surface additive (BYK)	BYK 342	0.2
H1	Defoamer (BYK)	BYK 1724	0.5
I1	Defoamer (BYK)	BYK 028	0.5
L1	Rheology modifier	VISCOLAM® PS 170 AIR (diluted 20% in water)	3.0
Total			100.0

Solid Content ≈ 43%

Vx Brookfield RVT 10 rpm spindle n°2 at 20°C ≈ 800 mPa*s



MATT & ANTI SCRATCH 1K FORMULATION

Gloss	20°	60°	85°
F15W09-2023 1K	1.4	10	20

Chemical and stain resistance EN 12720 - 1K							
Formulation	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic Acid 10%- 1h	Ketchup 1h	Coffee 1h (40g/L)	Mustard 1h	Shoe polish (kiwi) 1h
F15W03-2023 1K	5	3	4	5	3	4	2
Formulation	MEK 10 min	Nivea cream 1h	Sun cream 1h	Betadine 1h	Olive oil 1h	Water 1 / 6 / 16h	
F15W03-2023 1K	3-4	5	4	2	5	5 / 5 / 5	



ESACOTE® AC 565



- Anionic self X-linking PAC
- APEO free
- High gloss and clarity
- Good hardness
- Excellent stain resistance in 1K formulations



- Suitable for sealers, primers and top coats
- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	milky liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.0-8.0
Viscosity (mPa.s): (Brookfield RVT @ 25 °C, 20 rpm spindle 2)	< 500
Solid content, %:	39.0-41.0

Product properties

Solvent content, %:	0%
Minimal film forming temperature, °C:	~55
Density @ 25°C, g/ml	~1.05
Koenig hardness (sec):	~125
Film aspect:	transparent and glossy



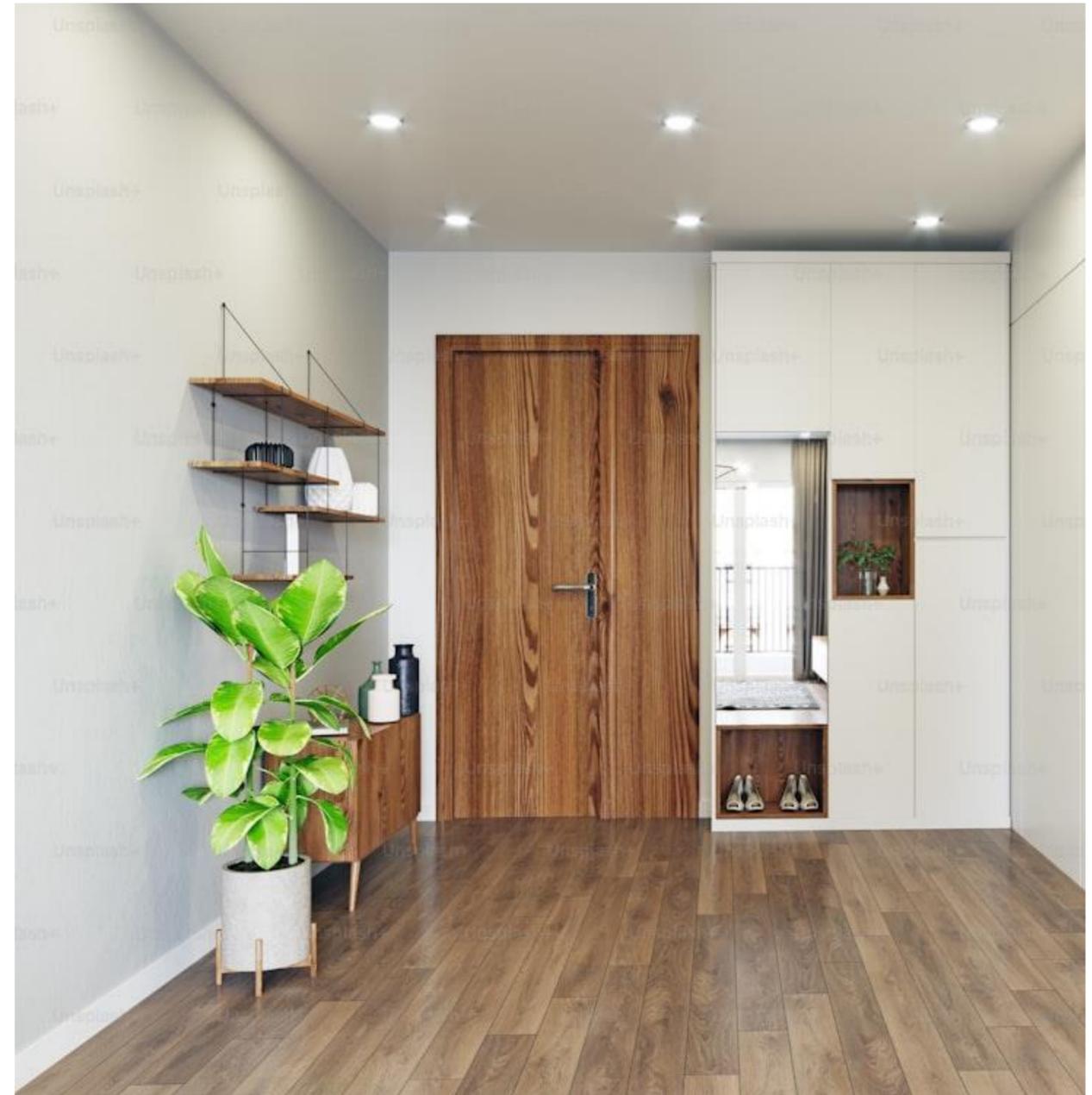
GLOSSY 1K TOP COAT FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® AC 565	80.0
B1	Wetting agent (Munzig)	EDAPLAN 451	0.5
B2	Defoamer (BYK)	BYK 028	0.5
C1	Defoamer (BYK)	BYK 1724	0.5
D1	Coalescent (DOW)	BUTYL CARBITOL	4.0
E1	Demi water	WATER	12.9
F1	Wetting agent (BYK)	BYK 333	0.1
H1	Rheology modifier	VISCOLAM® PS 202 AIR (diluted 20%)	1.5
Total			100.0

Solid Content ≈ 33%

Vx Brookfield RVT 50 rpm spindle n°2 at 20°C ≈ 77 mPa*s

Formulation	Gloss (25°)	Gloss (60°)
AC 565 1K	47	84



GLOSSY 1K TOP COAT FORMULATION

Chemical and stain resistance EN 12720 – 1K on veneered walnut						
Formula	Olive oil 1h	Nivea cream 1 h	Sun cream 1h	Water 1h	Water 6h	Water 16h
AC 565	5	5	5	5	5	5

Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% - 1 h	Acetone 10 min	Betadine 1h
AC 565	5	5	5	1-2	3-4

Chemical and stain resistance EN 12720 – 1K on solid maple					
Formula	Coffee (40g/L) 1h	Ketchup 1h	Mustard 1h	Shoe polish 1h	
AC 565	5	5	5	3	



ESACOTE UA 8004 (development product)



- Anionic self X-linking PUD
- High gloss & clarity
- Good hardness development
- Mechanical & chemical resistances
- Good balance of elasticity & hardness
- Excellent flow & levelling



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	opalescent liquid
pH (at 25°C, ASTM E 70):	7.0 - 9.0
Viscosity (Brookfield RVT @ 25 °C, 50 rpm):	< 300 cPs
Solid content, %:	34 - 36

Product properties

Solvent content, %:	0%
Density, @ 25°C g/ml:	1.01 - 1.03
Minimal film forming temperature, °C:	~30°C
Koenig hardness, sec:	~94
Film aspect:	transparent, glossy not stiky



1K TOP COAT WOOD FLOORING FORMULATION – 15 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	75.9
B1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	4.0
C1	Demi water	WATER	4.0
D1	Wetting agent (Evonik)	DYNOL 960	0.5
E1	Defoamer (BYK)	BYK 025	0.5
F1	PE wax dispersion	ADIWAX H05CW	3.0
G1	Matting agent	DECOSPHAERA® 8-20	5.0
H1	Wax (BYK)	CERAFLUOR 1000	0.5
I1	Demi water	WATER	6.4
L1	Rheology modifier	VISCOLAM® PS 170 AIR	0.2
Total			100.0

Chemical and stain resistance EN 12720 – 1K on veneered walnut							
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% - 1h	Cle aner 1h	Sun Cream 1h	Water 1 / 6 / 16h	Olive Oil 1h
F04W38-2024	2	5	5	5	5	5/5/5	5

Chemical and stain resistance EN 12720 – 1K on veneered Beech							
Formula	Coffee 1h (40g/L)	Coffee 6h (40g/L)	Sun cream 1h	Ketchup 1h	Betadine 1h	Mustard 1h	Shoe polish 1h
F04W38-2024	4,5	3,5	5	5	2	5	3,5



1K TOP COAT WOOD FLOORING FORMULATION – 5 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	60.0
B1	Matting agent	DECOSPHAERA® 15F	15.0
C1	Coalescent (DOW)	DOWANOL DPnB	3.0
D1	Wetting agent (Evonik)	DYNOL 960	0.5
E1	Defoamer (BYK)	BYK 025	0.3
F1	Defoamer (Evonik)	TEGO FOAMEX 822	0.3
G1	PE wax dispersion	ADIWAX H05CW	3.0
H1	Micronized PE wax (BYK)	CERAFLUOR 927	0.5
I1	Demi water	WATER	16.4
L1	Rheology modifier	VISCOLAM® PS 170 AIR (20% dilution)	1.0
Total			100.0

Formulation	Weight loss (g) – CS17 – 1000 round		
F01AW08-2024 1K	0.063 gr		
Gloss	20°	60°	85°
F01AW38-2024 1K	1	6.6	9.6

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)					
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% - 1 h	Water 1/6/16 h	Ethanol 96% - 1h
F01AW38-2024	3	4.5	5	5/5/5	3.5

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)							
Formula	Coffee - 1h (40g/L)	Tea 1h	Na ₂ CO ₃ 1h 10%	Ketchup 1h	Olive oil 1h	Mustard 1h	Shoe polish 1h
F01AW38-2024	5	3.5	3.5	5	5	5	2



1K TOP COAT WOOD FLOORING FORMULATION – 5 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	60.0
B1	Matting agent	DECOSPHAERA® 15F	10.0
C1	Inherently matt binder	ESACOTE® PU 980	3.0
D1	Coalescent (DOW)	DOWANOL DPnB	3.0
E1	Wetting agent (Evonik)	DYNOL 960	0.5
F1	Defoamer (BYK)	BYK 025	0.3
G1	Defoamer (Evonik)	TEGO FOAMEX 822	0.3
H1	PE wax dispersion	ADIWAX H05CW	3.0
I1	Micronized PE wax (BYK)	CERAFLUOR 927	0.5
L1	Silica (Grace)	SYLOID AQ 880	2.5
M1	Demi water	WATER	14.9
N1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
Total			100.0

Formulation	Weight loss (g) – CS17 – 1000 round		
F02AW08-2024 1K	0.067 gr		
Gloss	20°	60°	85°
F02AW38-2024 1K	0.8	4.7	6.0

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)					
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% - 1h	Water 1/6/16 h	Ethanol 96% -1h
F02AW38-2024	3	3	5	5/5/5	3

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)							
Formula	Coffee (40g/L) 1h	Tea 1h	Na ₂ CO ₃ 10% 1h	Ketchup 1h	Olive oil 1h	Mustard 1h	Shoe polish 1h
F02AW38-2024	5	5	3.5	5	5	5	2



1K TOP COAT WOOD FLOORING FORMULATION – 5 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	60.0
B1	Matting agent	DECOSPHAERA® 15F	10.0
C1	Matting agent	DECOSPHAERA® 30F	5.0
D1	Coalescent (DOW)	DOWANOL DPnB	3.0
E1	Wetting agent (Evonik)	DYNOL 960	0.5
F1	Defoamer (BYK)	BYK 025	0.3
G1	Defoamer (Evonik)	TEGO FOAMEX 822	0.3
H1	PE wax dispersion	ADIWAX H05CW	3.0
I1	Micronized PE wax (BYK)	CERAFLUOR 927	0.5
L1	Demi water	WATER	15.4
M1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
Total			100.0

Formulation	Weight loss (g) – CS17 – 1000 round		
F03AW08-2024 1K	0.067 gr		
	20°	60°	85°
F03AW38-2024 1K	0.7	4.8	1.8

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)					
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% - 1h	Water 1/6/16 h	Ethanol 96% -1h
F03AW38-2024	2	3	5	5/5/5	2

Chemical and stain resistance EN 12720 – 1K on solid oak (3 coats by roller)							
Formula	Coffee (40g/L) 1h	Tea 1h	Na ₂ CO ₃ 10% 1h	Ketchup 1h	Olive oil 1h	Mustard 1h	Shoe polish 1h
F03AW38-2024	5	5	3.5	5	5	5	2



1K TOP COAT WOOD FLOORING FORMULATION – 4 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	50.0
B1	Matting agent	DECOSPHAERA® 15F	5.0
C1	Matting agent	SPHEROMERS® CA 20	5.0
D1	Inherently matt PUD	ESACOTE® PU 980	3.0
E1	Coalescent (DOW)	DOWANOL DPnB	2.5
F1	Coalescent (DOW)	DOWANOL DPM	0.5
G1	Wetting agent (Tego)	TEGO 236	0.5
H1	Defoamer (BYK)	BYK 025	0.3
I1	Defoamer (Evonik)	TEGO FOAMEX 822	0.3
L1	PE wax dispersion	ADIWAX H05CW	3.0
M1	Micronized PE wax (BYK)	CERAFLUOR 927	0.5
N1	Silica (Grace)	SYLOID AQ 880	3.0
O1	Demi water	WATER	24.4
P1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
Total			100.0

Gloss	20°	60°	85°
F03AW38-2024 1K	0.7	4.4	3.6



1K TOP COAT WOOD FLOORING FORMULATION – 3 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8004	50.0
B1	Matting agent	DECOSPHAERA® 15F	10.0
D1	Inherently matt PUD	ESACOTE® PU 980	3.0
E1	Coalescent (DOW)	DOWANOL DPnB	2.5
F1	Coalescent (DOW)	DOWANOL DPM	0.5
G1	Wetting agent (Tego)	TEGO 236	0.5
H1	Defoamer (BYK)	BYK 025	0.3
I1	Defoamer (Evonik)	TEGO FOAMEX 822	0.3
L1	PE wax dispersion	ADIWAX H05CW	3.0
M1	Micronized PE wax (BYK)	CERAFLUOR 927	0.5
N1	Silica (Grace)	SYLOID AQ 880	3.0
O1	Demi water	WATER	24.4
P1	Rheology modifier	VISCOLAM® PS 202 AIR	2.0
Total			100.0

Gloss	20°	60°	85°
F03AW38-2024 1K	0.6	2.8	1.0



ESACOTE® UA 8009 (development product)



- **Anionic self X-linking UAD**
- **Solvent free**
- High gloss & clarity
- Good hardness development
- Mechanical & chemical resistances
- Good balance of elasticity & hardness



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications
- **Very low cosolvent demand**
- Excellent flow & levelling

Product properties

Appearance at 25 °C:	opalescent liquid
pH (at 25°C, ASTM E 70):	8.0 - 10.0
Viscosity (Brookfield RVT @ 25 °C, 50 rpm):	< 400 cPs
Solid content, %:	34 - 36

Typical values*

Solvent content, % :	0%
Density, @ 25°C g/ml:	1.01 - 1.03
Minimal film forming temperature, °C:	~0°C
Koenig hardness, sec:	~90
Film aspect:	transparent, glossy not stiky

**These values provide general information and are not part of the product specification*



1K TOP COAT WOOD FLOORING GLOSSY FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8009	86.0
B1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	3.0
C1	Demi water	WATER	3.0
D1	Wetting agent (Munzing)	EDAPLAN LA 541	0.3
E1	Defoamer (Evonik)	TEGO FOAMEX 822	0.2
F1	Slip agent (BYK)	BYK 333	0.1
G1	Demi water	WATER	7.1
H1	Rheology modifier	VISCOLAM® PS 202 AIR	0.3
Total			100.0

Solid Content 30%
Ford Cup N°4 = 20-30"

Application: by spray - 1 Coat on cherry melamine:

Gloss	20°	60°	85°
F03W39-2025 1K	80.8	87.9	97.2

Application: by roller - 3 coats on veneered beech:

Gloss	20°	60°	85°
F03W39-2025 1K	29.9	81.8	89.7

Application: 2 coats on melamine panel, 100 g/m² wet thickness each - test carried out after 7 days conditioning

Formulation	Weight loss (g) - CS10 - 1000 round
F03W39-2025 1K	0.050

Chemical and stain resistance EN 12720 - 3 coats on veneered beech								
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Ethanol 96% - 1h	Acetic A. 10% - 1h	Cleaner 1h	Sun Cream 1h	Water 1 / 6 / 16h	Olive Oil 1h
F04W38-2024	2-2.5	5	4	5	5	5	5-5-5	5

Chemical and stain resistance EN 12720 - 3 coats on veneered Beech							
Formula	Coffee (40g/L) 1 / 6 / 16 h	Wine 1h	Tea 1h	Ketchup 1h	Betadine 1h	Mustard 1h	Shoe polish 1h
F04W38-2024	3.5-3-2	5	5	5	2	4	3



1K TOP COAT WOOD FLOORING FORMULATION - 15 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8009	78.0
B1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	3.0
B2	Demi water	WATER	3.0
C1	Wetting agent (Munzing)	EDAPLAN LA 541	0.3
D1	Defoamer (Evonik)	TEGO FOAMEX 825	0.2
E1	Defoamer (BYK)	BYK 025	0.3
F1	PE wax dispersion	ADIWAX H 05 CW	3.0
G1	Matting agent	DECOSPHAERA® 8-20	5.0
H1	Wax (BYK)	Cerafluor 1000	1.0
I1	Demi water	WATER	5.9
L1	Rheology modifier	VISCOLAM® PS 202	0.3
Total			100.0

Application: by spray - 1 Coat on cherry melamine:

Gloss	20°	60°	85°
F04W39-2025 1K	2.0	14.5	27.5

Application: by roller - 3 coats on veneered beech:

Gloss	20°	60°	85°
F04W39-2025 1K	2.8	16.1	33.0

Application: 2 coats on melamine panel, 100 g/m² wet thickness each - test carried out after 7 days conditioning

Formulation	Weight loss (g) - CS17 - 1000 round
F04W39-2025 1K	0.058

Solid Content 35%
Ford Cup N°4 = 80"

Chemical and stain resistance EN 12720 - 3 coats on veneered beech								
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Ethanol 96% - 1h	Acetic A. 10% - 1h	Cle aner 1h	Sun Cream 1h	Water 1 / 6 / 16h	Olive Oil 1h
F04W38-2024	2-2.5	5	3	4	5	5	5-5-5	5

Chemical and stain resistance EN 12720 - 3 coats on veneered Beech							
Formula	Coffee (40g/L) 1 / 6 / 16 h	Wine 1h	Tea 1h	Ketchup 1h	Betadine 1h	Mustard 1h	Shoe polish 1h
F04W38-2024	3.5-2-2	5	3	5	2	3.5	2.5



1K TOP COAT WOOD FLOORING FORMULATION - 6 GU @60°

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8009	60.0
B1	Inherently matt binder	ESACOTE® PU 980	15.0
C1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	3.0
C2	Demi water	WATER	3.0
D1	Wetting agent (Munzing)	EDAPLAN LA 541	0.3
E1	Defoamer (Evonik)	TEGO FOAMEX 825	0.2
F1	Defoamer (BYK)	BYK 025	0.3
G1	Slip agent (BYK)	BYK 333	0.1
H1	Matting agent	DECOSPHAERA® 8-20	10.0
I1	Demi water	WATER	7.8
L1	Rheology modifier	VISCOLAM® PS 202	0.3
Total			100.0

Application: by spray - 1 Coat on cherry melamine:

Gloss	20°	60°	85°
F04W39-2025 1K	0.7	6.4	15.7

Application: by roller - 3 coats on veneered beech:

Gloss	20°	60°	85°
F04W39-2025 1K	1.0	6.2	13.8

Application: 2 coats on melamine panel, 100 g/m² wet thickness each - test carried out after 7 days conditioning

Formulation	Weight loss (g) - CS17 - 1000 round
F04W39-2025 1K	0.059

Solid Content 30%

Ford Cup N°4 = 20-30"

Chemical and stain resistance EN 12720 - 3 coats on veneered beech								
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Ethanol 96% - 1h	Acetic A. 10% - 1h	Cle aner 1h	Sun Cream 1h	Water 1 / 6 / 16h	Olive Oil 1h
F04W38-2024	2-2.5	5	2	5	5	5	5-5-5	5

Chemical and stain resistance EN 12720 - 3 coats on veneered Beech							
Formula	Coffee (40g/L) 1 / 6 / 16 h	Wine 1h	Tea 1h	Ketchup 1h	Betadine 1h	Mustard 1h	Shoe polish 1h
F04W38-2024	2.5-2-2	5	5	5	2	4	3

ESACOTE® UA 7023



- Anionic self X-linking PUD
- Quick drying
- Good hardness development
- Good mechanical & chemical resistance
- Good stain resistance



- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	opalescent liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.0-9.0
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 1)	<300
Solid content, %:	34.0-36.0

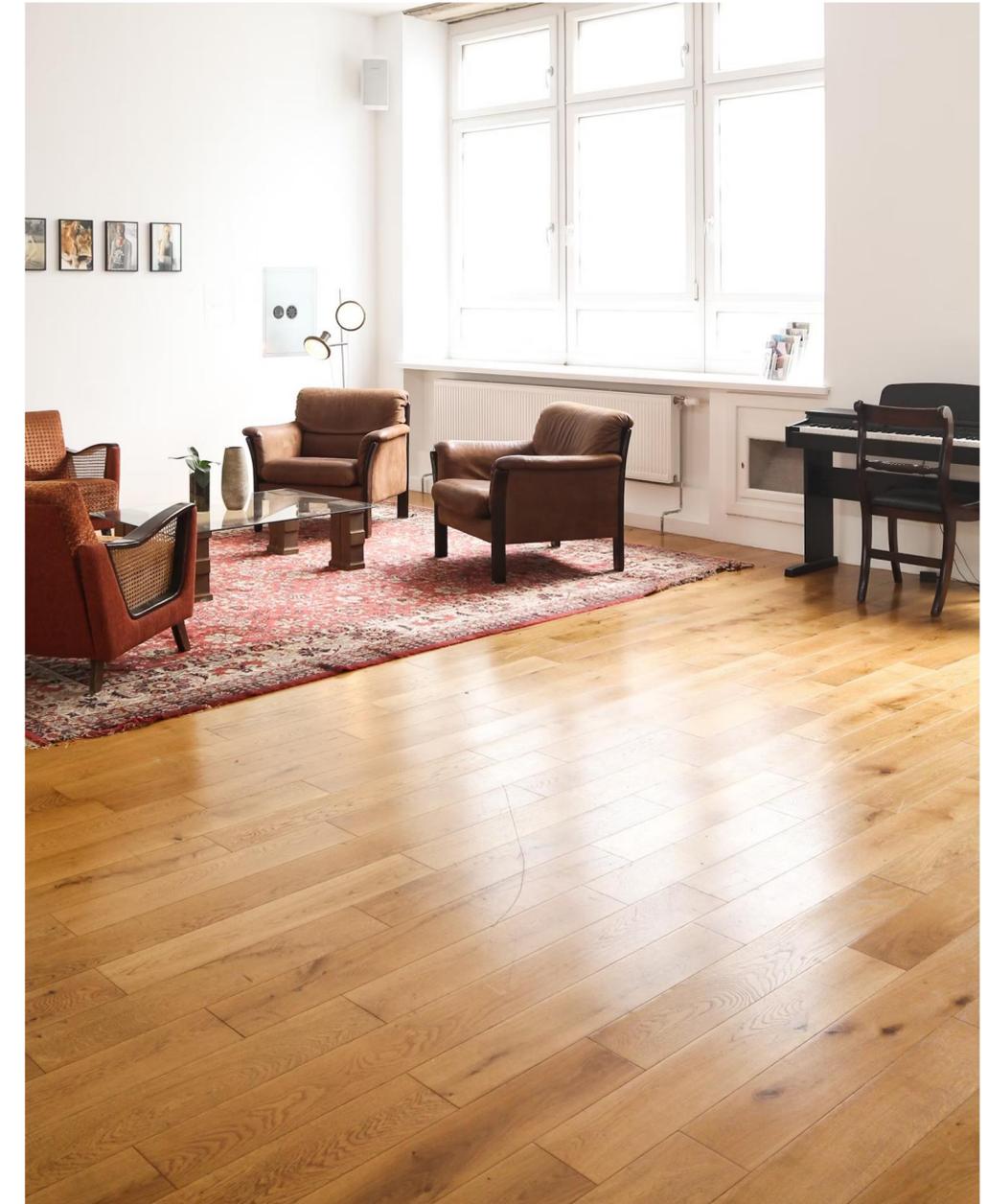
Product properties

Solvent content, %:	0%
Density, @ 25°C g/ml:	1.01-1.03
Minimal film forming temperature, °C:	~60
Koenig hardness (s)	~140
Film aspect:	hard, transparent and glossy



GLOSSY 1K TOP COAT FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® UA 7023	80.0
B1	Defoamer (BYK)	BYK 024	0.5
C1	Wetting agent (Munzig)	EDAPLAN 451	0.5
D1	Coalescent (DOW)	BUTYL CARBITOL (BDG)	8.0
D2	Demi water	WATER	8.0
E1	Rheology modifier	VISCOLAM® PS 170 AIR (20% in water)	0.8
F1	Wetting agent (BYK)	BYK 349	0.2
G1	Demi water	WATER	2.0
Total			100.0





GLOSSY 1K TOP COAT FORMULATION

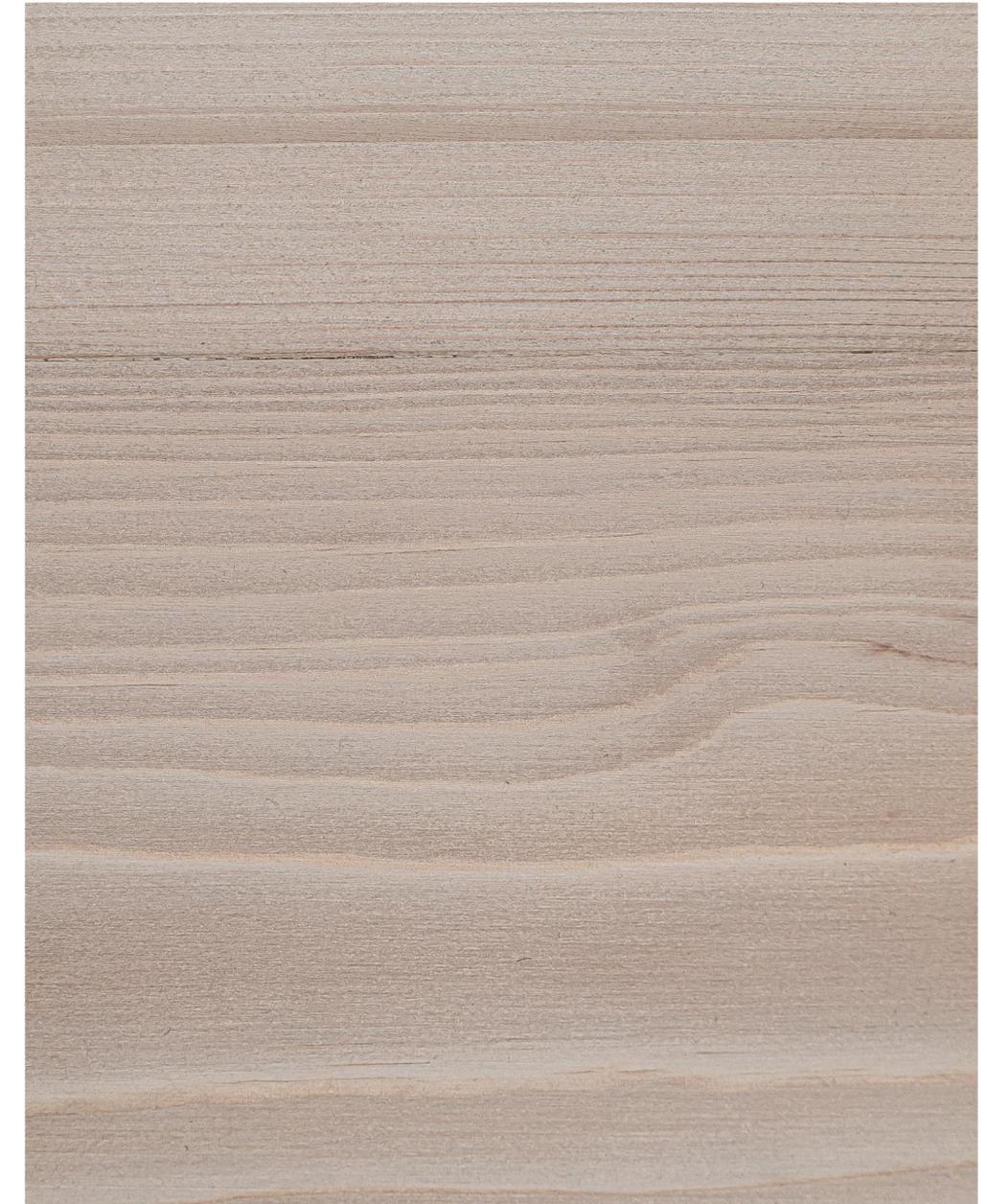
Formula	Gloss 20°/ 60°		Pencil Hardness				
UA 7023	53 - 88		HB - F				
Chemical and stain resistance EN 12720 - 1K on solid Beech							
Formula	NH ₃ 10% - 1h	Coffee (40g/L) 1h	Sun cream 1h	Ketchup 1h	Betadine 1h	Mustard 1h	Shoe polish 1h
UA 7023	2-3	5	5	5	4	5	5
Chemical and stain resistance EN 12720 - 1K on veneered walnut							
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic A. 10% 1h	Aceton 10 min	MEK 10 min	Water 1 / 6 / 16h	
UA 7023	2	4	5	5	5	5 / 5 / 5	
Formula	Coffee (40g/L) 1h	Coffee (40g/L) 6h	Coffee (40g/L) 16h	Shoe polish 1h	Ketchup 1h	Mustard 1h	
UA 7023	5	5	5	5	5	5	

MATT (6 gu) 1K TOP COAT FORMULATION

		Trade name	% w/w
A1	Binder	ESACOTE® UA 7023	52.0
B1	Inherently matt Binder	ESACOTE® PU 980	8.0
C1	Wetting agent (Munzing)	EDAPLAN 451	0.5
D1	Defoamer (BYK)	BYK 028	0.5
E1	Slip/mar resistance (Dow)	DOWSIL 51	0.25
E2	Demi water	WATER	0.25
F1	Microbeads	DECOSPHAERA® 8-20	10.0
G1	Demi water	WATER	10.8
H1	Wax Dispersion	ADIWAX® H05CW (30%)	3.0
I1	Defoamer (BYK)	BYK 1724	0.5
L1	Wetting agent (BYK)	BYK 342	0.2
M1	Coalescent (DOW)	Butyl CARBITOL (butyl diglycol)	6.0
M2	Demi water	WATER	6.0
N1	Rheology modifier	VISCOLAM® PS 170 AIR (20% in water)	1.0
O1	Rheology modifier	VISCOLAM® PS 202 AIR	1.0
Total			100

Solid Content ≈ 32,5%

Brookfield viscosity RVT (spindle 2, 10 rpm) at 20°C after 48 hours: ≈1000 cps



MATT (6 gu) 1K TOP COAT FORMULATION

Chemical and stain resistance EN 12720 - 1K							
Formula	NH ₃ 10% - 1h	Ethanol 48% - 1h	Acetic Acid 10% 1h	Ketchup 1h	Coffee (40g/L) 1h	Coffee (40g/L) 6h	Coffee (40g/L) 16h
F17W6-2022 1K	5	3	5	5	5	2	2
Formula	MEK 10 min	Acetone 10 min	Mustard 1h	Shoe polish 1h	Water 1h	Water 6h	Water 16h
F17W6-2022 1K	4	4	5	3-4	5	2	2



Binders for rad curable formulations

ESACOTE[®] LX



ESACOTE® LX 5010



- Anionic rad curable PUD
- Solvent free
- TMPTA free
- Low MFFT
- **Excellent hardness and abrasion resistance**
- High stain & chemical resistances
- Good balance of elasticity & hardness



- Tack free before curing
- **High stability in complex formulations**
- Suitable for spray, brush and roller applications
- Suitable for professional and OEM applications
- Suitable for traditional Hg lamps and LED curing

Typical values

Appearance at 25 °C:	Opalescent liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.00-9.00
Viscosity (cPs) (Brookfield RVT @ 25 °C, 20 rpm spindle 2 ASTM D2196)	≤500
Solid content, %: (80°C Temperature constant Z0500)	39-41

Product properties

Solvent content, % :	0
Density, @ 25°C g/ml:	1.03 -1.05
Minimal film forming temperature, °C:	~0
Koenig hardness (after UV curing) (s)	~170
Film aspect:	hard, transparent and glossy



GLOSSY UV TOP COAT WOOD COATING

		Trade name	% w/w
A1	Binder	ESACOTE® LX 5010	75.0
B1	Photoinitiator (IGM)	OMNIRAD 1173	1.6
C1	Wetting agent (BYK)	BYK 349	0.3
D1	Levelling agent (BYK)	BYK 333	0.1
E1	Deareator (Evonik)	TEGO 902 WN	0.35
F1	Demi water	WATER	20.05
G1	Rheology modifier	VISCOLAM® PS 170 AIR (20% diluted)	2.6
Total			100.0

Solid Content ≈ 30%

Gloss @60° 86 GU / @85° 91 GU

Viscolam® PS 170 AIR needs to be prediluted 20% with demi water

Chemical and stain resistance EN 12720

Formulation	NH ₃ 10% 1h	Acetic Acid 10% 1h	EtOH 48% 1 / 16 h	EtOH 80% 1 / 16 h	Water 1 / 16 h	Mustard 1 / 16 h	Shoe polish 1h
ESACOTE® LX 5010	5	5	5/5	5/5	5/5	5/4.5	5

Formulation	Coffee (40 g/L) 1h & 16h	BIC 1h	Marker 1h	Betadine 1h	Ketchup 1h	Wine 1 / 16 h
ESACOTE® LX 5010	5/5	5	3.5	5	5	5/5



MATT UV TOP COAT WOOD COATING

		Trade name	% w/w
A1	Binder	ESACOTE® LX 5010	65.0
B1	Binder	ESACOTE® PU 980	10.0
C1	Photoinitiator (IGM)	OMNIRAD 1173	1.6
D1	Microbeads	DECOSPHAERA® TR 8/20	7.0
E1	Silica (Evonik)	ACEMATT 3600	1.5
F1	Wetting agent (BYK)	BYK 349	0.3
G1	Defoamer (BYK)	BYK 025	0.5
H1	Levelling agent (BYK)	BYK 333	0.1
I1	Water	WATER	12.0
L1	Rheology modifier	VISCOLAM® PS 170 AIR (20% diluted)	2.0
Total			100.0

Solid Content ≈ 40%

Gloss @60° 4.4 GU / @85° 8.7 GU

Viscolam® PS 170 AIR needs to be prediluted 20% with demi water

Chemical and stain resistance EN 12720

Formulation	NH ₃ 10% 1h	Acetic Acid 10% 1h	EtOH 48% 1 / 16 h	EtOH 80% 1 / 16 h	Water 1 / 16 h	Mustard 1 / 16 h	Shoe polish 1h
ESACOTE® LX 5010	3	5	5/5	5/2	5/5	5/3	5

Formulation	Coffee (40 g/L) 1h & 16h	BIC 1h	Marker 1h	Betadine 1h	Ketchup 1h	Wine 1 / 16 h
ESACOTE® LX 5010	5/5	5	3	4	5	5/5



ESACOTE® LX 7050



- Anionic rad curable PUD
- Solvent free
- Low MFFT
- **Low yellowing**
- High abrasion resistance
- High stain & chemical resistances
- Good balance of elasticity & hardness



- Tack free before curing
- Suitable for spray, brush and roller applications
- Suitable for professional and OEM applications
- Suitable for traditional Hg lamps and LED curing

Typical values

Appearance at 25 °C:	Opalescent liquid
pH:	7.00-9.00
(at 25°C on supplied product, ASTM E 70):	
Viscosity (cPs)	≤300
(Brookfield RVT @ 25 °C, 50 rpm spindle 2 ASTM D2196)	
Solid content (%):	37-39
(120°C Temperature constant Z0500)	

Product properties

Solvent content, %:	0
Density, @ 25°C g/ml:	1.03 -1.05
Minimal film forming temperature, °C:	~0
Koenig hardness (after UV curing) (s)	~140
Film aspect:	hard, transparent and glossy



GLOSSY UV TOP COAT WOOD COATING

		Trade name	% w/w
A1	Binder	ESACOTE® LX 7050	77.0
B1	Photoinitiator (IGM)	OMNIRAD 1173	1.6
C1	Wetting agent (BYK)	BYK 349	0.3
D1	Levelling agent (BYK)	BYK 333	0.1
E1	Defoamer (BYK)	BYK 025	0.5
F1	Demi water	WATER	18.5
G1	Rheology modifier	VISCOLAM® PS 170 AIR (20% diluted)	2.0
Total			100.0

Solid Content ≈ 30%

Gloss @60° 74 GU / @85° 85 GU

Viscolam® PS 170 AIR needs to be prediluted 20% with demi water

Chemical and stain resistance EN 12720

Formulation	NH ₃ 10% 1h	Acetic Acid 10% 1h	EtOH 48% 1 / 16 h	EtOH 80% 1 / 16 h	Water 1 / 16 h	Mustard 1 / 16 h	Shoe polish 1h
ESACOTE® LX 7050	5	5	5/5	5/4	5/5	5/4	5

Formulation	Coffee (40 g/L) 1h & 16h	BIC 1h	Marker 1h	Betadine 1h	Ketchup 1h	Wine 1 / 16 h
ESACOTE® LX 7050	5/5	5	2.5	5	5	5/5



MATT UV TOP COAT WOOD COATING

		Trade name	% w/w
A1	Binder	ESACOTE® LX 7050	79.0
B1	Photoinitiator (IGM)	OMNIRAD 1173	1.6
C1	Microbeads	DECOSPHAERA® TR 8/20	7.0
D1	Silica (Evonik)	ACEMATT 3300	1.5
E1	Wetting agent (BYK)	BYK 349	0.3
F1	Defoamer (BYK)	BYK 025	0.5
G1	Water	WATER	8.4
H1	Rheology modifier	VISCOLAM® PS 170 AIR (20% diluted)	1.7
Total			100.0

Solid Content ≈ 38%

Gloss @60° 4.8 GU / @85° 10.8 GU

Viscolam® PS 170 AIR needs to be prediluted 20% with demi water

Chemical and stain resistance EN 12720

Formulation	NH ₃ 10% 1h	Acetic Acid 10% 1h	EtOH 48% 1 / 16 h	EtOH 80% 1 / 16 h	Water 1 / 16 h	Mustard 1 / 16 h	Shoe polish 1h
ESACOTE® LX 7050	4	5	5/5	5/5	5/5	5/3.5	5

Formulation	Coffee (40 g/L) 1h & 16h	BIC 1h	Marker 1h	Betadine 1h	Ketchup 1h	Wine 1 / 16 h
ESACOTE® LX 7050	5/5	5	2.5	4	5	5/5

Polymeric matting agents

ESACOTE[®] PU, DECOSPHAERA[®] & SPHEROMERS[®]

ESACOTE® PU 960



- Inherently matt anionic PUD
- Matt appearance
- Velvet feeling
- MFFT reducer
- Tack free



- Suitable for 2K formulations
- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	milky liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.00-9.00
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 3)	< 1500
Solid content, %:	38-40
Gloss unit, 60°:	<2

Product properties

Solvent content, %:	0
Density, @ 25°C g/ml:	1.03 – 1.05
Minimal film forming temperature, °C:	~0
Film aspect:	matt, ultra soft touch, tack free

ESACOTE® PU 980



- Inherently matt anionic PUD
- Matt appearance
- Silky feeling
- High clarity on dark substrates
- MFFT reducer
- Tack free



- Suitable for 2K formulations
- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Typical values

Appearance at 25 °C:	milky liquid
pH: (at 25°C on supplied product, ASTM E 70):	7.5-9.5
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 3)	600- 1100
Solid content, %:	31-33
Gloss unit, 60°:	<1

Product properties

Solvent content, % :	0
Density, @ 25°C g/ml:	1.01 – 1.05
Minimal film forming temperature, °C:	~0
Film aspect:	matt, silky touch, tack free

ESACOTE® BIO 9001



- Inherently matt anionic PUD
- Matt appearance
- Silky feeling
- High clarity on dark substrates
- MFFT reducer
- Tack free



- Suitable for 2K formulations
- Suitable for spray, brush and roller applications
- Suitable for DIY, professional and OEM applications

Sustainability features

ESACOTE® BIO 9001 is made with raw materials from vegetal sources, obtained from plant-derived substances.

Biobased Carbon content C¹⁴/C_{total} according to ASTM D6866: **66 % ± 3**

Typical values

Appearance at 25 °C:	milky liquid
pH:	8.0-9.0
(at 25°C on supplied product, ASTM E 70):	
Viscosity (cPs)	600- 1000
(Brookfield RVT @ 25 °C, 50 rpm spindle 3)	
Solid content, %:	31.0-33.0
Gloss unit, 60°:	<1

Product properties

Solvent content, % :	0
Density, @ 25°C g/ml:	1.01 – 1.05
Minimal film forming temperature, °C:	~0
Film aspect:	matt, silky touch, tack free

DECOSPHAERA®



- ✓ Crosslinked PU chemistry
- ✓ Spherical shape
- ✓ Gaussian distribution
- ✓ Deep matt effect
- ✓ Natural look & no haziness
- ✓ Excellent scratch & stain resistance
- ✓ Soft & elastic touch



- ✓ Solvent free manufacturing process
- ✓ Transparent & colored grades
- ✓ Suitable for WB, SB, UV and moisture curable formulations
- ✓ Particle size (D50) from 3µm to 30µm



- ✓ Free flowing dry powder
- ✓ Dry content > 99%

SPHEROMERS®



- ✓ Crosslinked PMMA chemistry
- ✓ Spherical shape
- ✓ Monosized distribution
- ✓ Deep matt effect
- ✓ Excellent scratch & stain resistance
- ✓ Hard & dry touch



- ✓ Solvent free manufacturing process
- ✓ Transparent grades
- ✓ Suitable for WB and SB formulations
- ✓ UV formulations upon compatibility check
- ✓ Particle size (D90) from $6\mu\text{m}$ to $60\mu\text{m}$



- ✓ Free flowing dry powder
- ✓ Dry content > 99%

Rheology modifiers

VISCOLAM[®] PS



VISCOLAM® PS 010 AIR



- ✓ Solvent free
- ✓ VOC/SVOC free
- ✓ HEUR thickener



- ✓ Shear thinning
- ✓ High thickening efficiency
- ✓ High pigment compatibility
- ✓ Sag resistance
- ✓ Settling resistance
- ✓ Suitable for spray applications

Sustainability features

VISCOLAM® PS 010 AIR is made with raw materials from vegetal sources, obtained from plant-derived substances.

Biobased Content calculated on product anhydrous according to EN 16785:2 **23%**

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 10.0

Viscosity (Brookfield CAP 2000, 25°C, 10 rpm): < 8.000 cPs

Dry content (120°C): > 39.5%

Co-solvent: None

APEO: free

VOC: free*

* According to Council Directive 2010/75/EU

VISCOLAM® PS 170 AIR



- ✓ Solvent free
- ✓ VOC/SVOC free
- ✓ HEUR thickener



- ✓ Medium-shear
- ✓ Good balance between thickening, levelling and gloss
- ✓ Anti-spattering properties

Sustainability features

VISCOLAM® PS 170 AIR is made with raw materials from vegetal sources, obtained from plant-derived substances.

Bio-based carbon content calculated C^{14}/C^{total} :
20%

Typical values

Appearance at 20°C: opalescent yellow liquid

pH: 4.0 - 10.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 8.000 cPs

Dry content (120°C): > 46.5%

Co-solvent: None

APEO: free

VOC: free*

* According to Council Directive 2010/75/EU



VISCOLAM[®] PS 202 AIR



- ✓ Solvent free
- ✓ VOC/SVOC free
- ✓ HEUR thickener



- ✓ Excellent film build
- ✓ Excellent flow and levelling
- ✓ High gloss
- ✓ Broad pH range

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
1.000 - 6.000 cPs

Solid content: 19 - 21%



VISCOLAM[®] PS 222 AIR



- ✓ Solvent free
- ✓ VOC/SVOC free
- ✓ HEUR thickener



- ✓ Strongly newtonian
- ✓ Suitable for gloss and semi-gloss paints
- ✓ Broad pH range

Typical values

Appearance at 20°C: opalescent liquid

pH: 4.0 - 7.0

Viscosity (Brookfield RVT at 25°C, 10 rpm, spindle 3):
max 9.000 cPs

Solid content: 24 - 26%

**Biobased alternative
already available**



Crosslinkers

CROSSLINKER 08 LM



- Aliphatic polyisocyanate



- In compliance with Regulation (EU) 2020/1149 – Annex XVII Regulation (EC) 1907/2006 – Diisocyanates

Typical values

Appearance at 25 °C:	trasparent liquid
% NCO content on supplied product:	10.4 – 12.4
Viscosity (cPs) (Brookfield RVT @ 25 °C, 50 rpm spindle 3)	< 700
Solid content, %:	69.0-71.0
Free HDI:	<1000 ppm

Product properties

Solvent content, % :	~ 30% Propylene Carbonate
Density, @ 25°C g/ml:	~ 1.1

Waxes

Water based dispersions based on natural & synthetic waxes

ADIWAX H 05 CW



- HDPE wax
- APEO free
- High melting point



- Antiscratch
- Anti blocking
- Bright film appearance

Typical values

Aspect: Clear yellow liquid

Dry content: 35.5 ± 1%

pH: 8,5 ± 1

Density: 1 ± 0.100 g/ml

ADIWAX H 30 F



- Carnauba wax
- T1 grade purity
- APEO free



- Antiscratch
- Abrasion resistance
- Anti blocking

Typical values

Appearance at 20 °C: Brown liquid

Dry content: 30 ± 1%

pH: 5 - 7



ADIWAX HP



- Secondary emulsion based on selected paraffins
- APEO free



- Superior hydrophobicity
- Anti blocking
- Anti slip

Typical values

Aspect: White liquid

Dry content: 45 ± 1%

pH: 8.3 ± 0.5

Density: 0.950 ± 0.100 g/ml

