



ESACOTE® UA 8009

Very low cosolvent demand binder for 1K wood flooring formulations



DISCLAIMER

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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)	7.0 - 9.0
Viscosity (cPs): (Brookfield RVT @ 25 °C, 50 rpm)	< 400
Solid content, %:	34 - 36

Typical values*

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

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

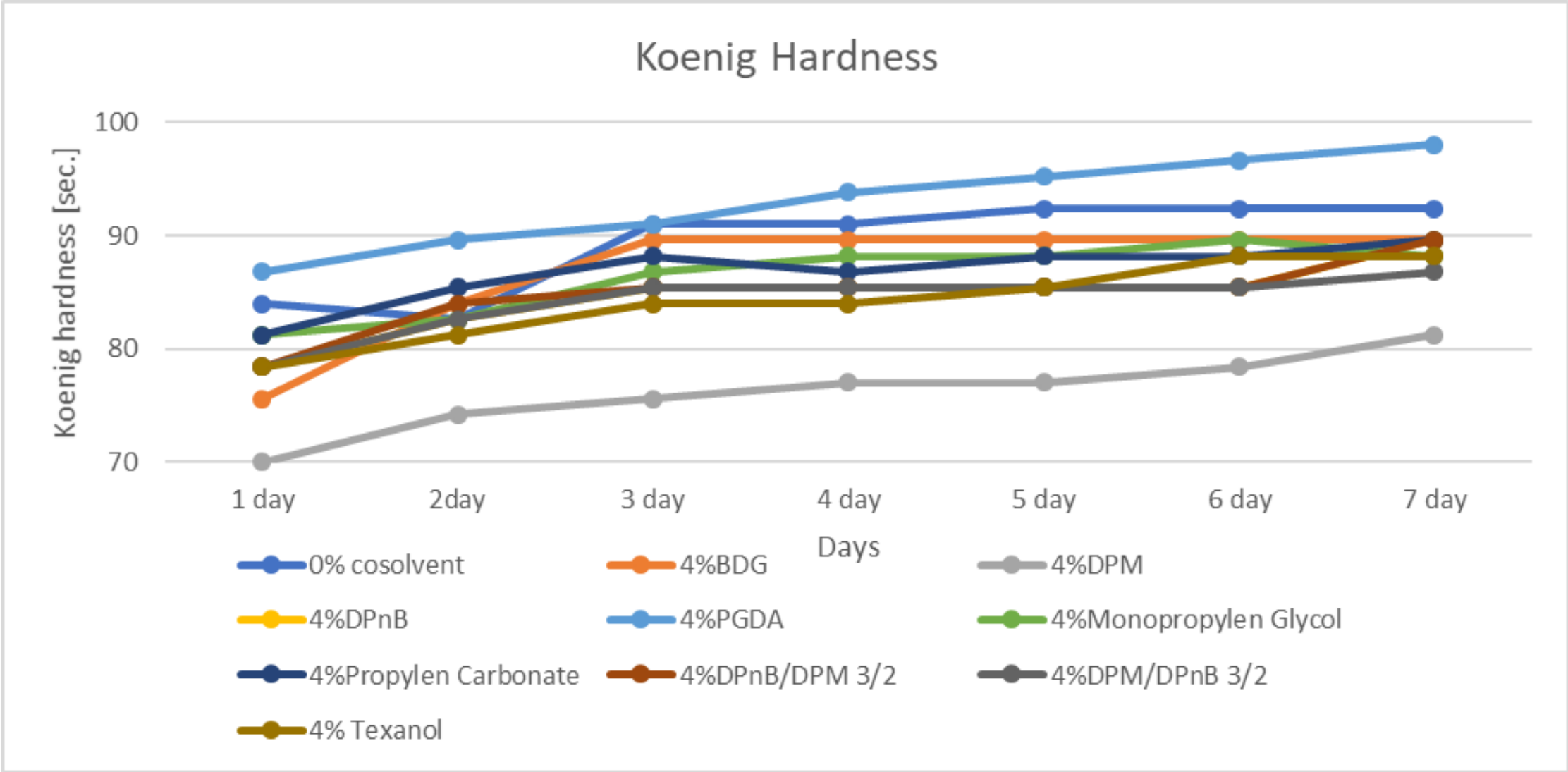
ESACOTE® UA 8009

Cosolvents evaluation & chemical resistance



Koenig Hardness

		Trade name	% w/w
A1	Binder	ESACOTE® UA 8009	100.0
B1	Coalescent	Tested solvent	4.0
B2	Demi water	WATER	4.0
C1	Wetting agent (BYK)	BYK 349	0.3
G1	Rheology modifier	VISCOLAM® PS 170 AIR (diluted in water 20%)	1.0
Total			109.3



Koenig hardness (sec) ESACOTE® UA 8009 with co-solvents							
Co-solvent	1 day	2 days	3 days	4 days	5 days	6 days	7 days
No cosolvent	84	83	91	91	92	92	92
BDG	76	84	90	90	90	90	90
DPM	70	74	76	77	77	78	81
DPnB	78	83	85	85	85	85	90
PGDA	87	90	91	94	95	97	98
Monopropylen Glycol	81	83	87	88	88	90	88
Propylen Carbonate	81	85	88	87	88	88	90
DPnB/DPM 3/2	78	84	85	85	85	85	90
DPM/DPnB 3/2	78	83	85	85	85	85	87
Texanol	78	81	84	84	85	88	88

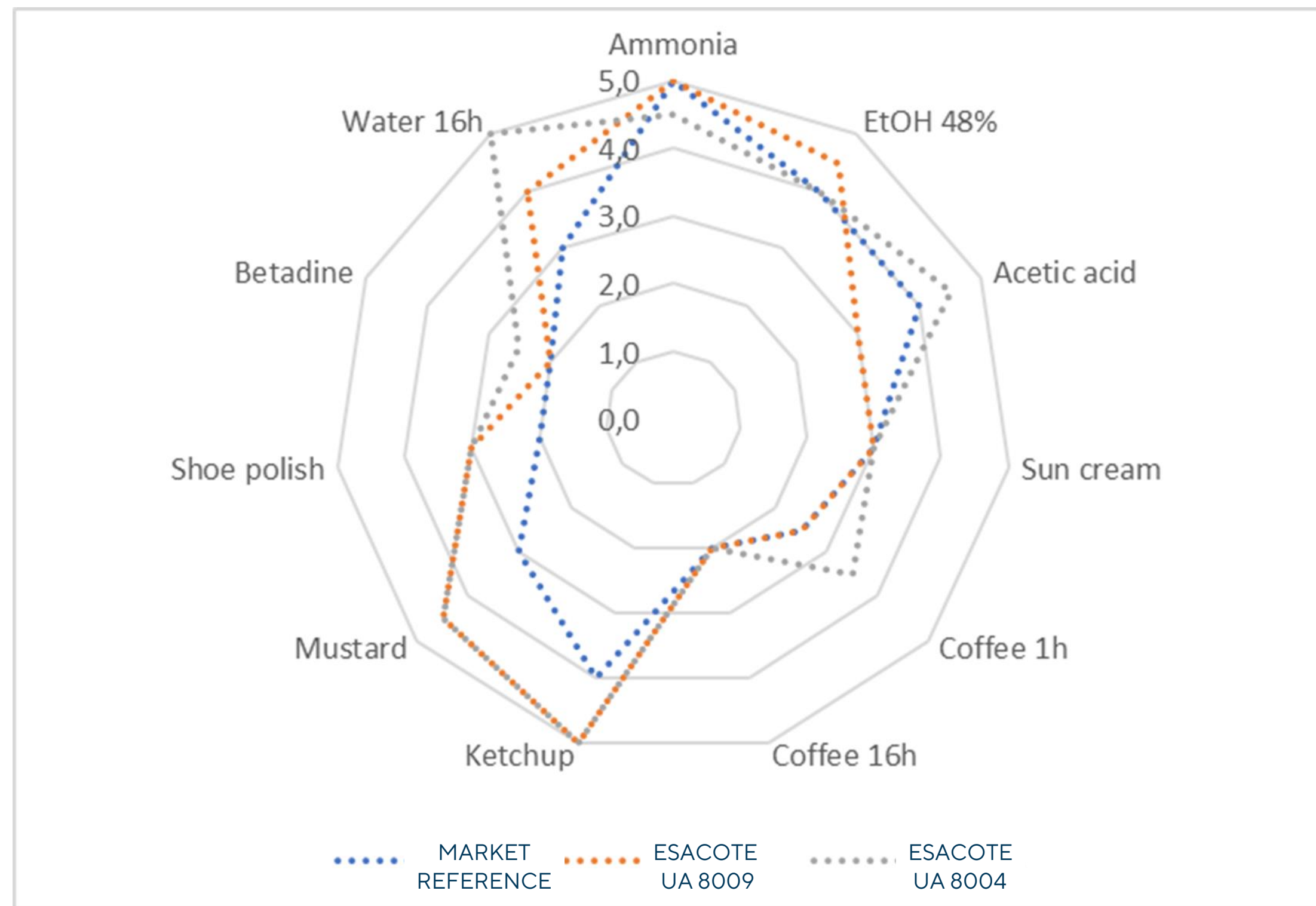


Compatibility with cosolvents (4% dosage)

Cosolvent stability at room temperature					
Co-solvent	Starting point	7 days	15 days	21 days	28 days
BDG	OK	OK	OK	OK	OK
DPM	OK	OK	OK	OK	OK
DPnB	OK	OK	OK	OK	OK
PGDA	OK	OK	OK	OK	OK
Monopropylen Glycol	OK	OK	OK	OK	OK
Propylen Carbonate	OK	OK	Rubbery settling	Rubbery settling	Rubbery settling
DPnB/DPM 3/2	OK	OK	OK	OK	OK
DPM/DPnB 3/2	OK	OK	OK	OK	OK
Texanol	OK	OK	OK	OK	OK

Cosolvent stability at T=28°C					
Co-solvent	Starting point	7 days	15 days	21 days	28 days
BDG	OK	OK	OK	OK	OK
DPM	OK	OK	OK	OK	OK
DPnB	OK	OK	OK	OK	OK
PGDA	OK	OK	OK	OK	OK
Monopropylen Glycol	OK	OK	OK	OK	OK
Propylen Carbonate	OK	Rubbery settling	Rubbery settling	Rubbery settling	Rubbery settling
DPnB/DPM 3/2	OK	OK	OK	OK	OK
DPM/DPnB 3/2	OK	OK	OK	OK	OK
Texanol	OK	OK	OK	OK	OK

Chemical & stain resistance on PVC / Water resistance on ABS



QUV Test

QUV TEST (UV lamp 340 nm)
Application: 100 micron wet on glass.

Formulation	Δb^* (Yellowing) 1000h	$\Delta Gloss$ 20° 1000h	$\Delta Gloss$ 60° 1000h	$\Delta Gloss$ 85° 1000h
UA 8009	+0.10	+1.0	0	-2

ESACOTE® UA 8009

Glossy & matt 1K starting formulations



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

