

Solutions for plastic coatings

Primers/Pre-treatments

- ESACOTE® PUDs and acrylic emulsions provide good adhesion, also with UV inks.
- ESACOTE® cationic and non ionic PUDs help widen choices of additives to be used in the formulation of special coatings without incurring in-compatibility issues.
- ESACOTE® PUDs improve Al and AlOx adhesion on plastic films for a better barrier effect against oxygen and water vapour.
- ESACOTE® PUDs withstand harsh sterilization conditions.

Heat sealability

- ESACOTE® acrylic emulsions with initial sealing temperature from 70 up to 130°C

Matt/Soft touch

- ESACOTE® PUDs inherently matt with a variety of haptic effects from silky to rubbery.
- ESACOTE® PUDs radiation curable to improve scratch and chemical resistance while keeping soft touch effect.
- DECOSPHAERA®/SPHEROMERS® PU and AC beads

to enhance burnishing, scratch resistance and special texturized effect.

- Bio-based ESACOTE® (glossy and inherently matt) and DECOSPHAERA® bio grades available.

OPV/Protective coating

- ESACOTE® PUDs and radiation curable PUDs to meet the most demanding specifications in terms of scratch and chemical resistance.
- DECOSPHAERA®/SPHEROMERS® PU and AC transparent beads to improve anti-burnishing effect and help control coefficient of friction.
- DECOSPHAERA®/SPHEROMERS® PU and AC beads for deep matt effect (< 2 gloss units) and haptic control.
- ADIWAX wax emulsion for anti blocking and scratch resistance.

Release/Transfer coating

- ESACOTE® PUDs and acrylic-urethane dispersion as release coating for labels' liners and adhesive tapes.
- ESACOTE® PUDs and acrylic-urethane hybrid dispersion as release coating for hot or cold stamping process; optimal overprintability.
- ESACOTE® acrylic emulsions as primers for UV curable glues in cold stamping.

Water based resins for plastic information & typical value chart

Products families and main features

		Main application			Chemical properties					Film properties			
		Transfer	Primers	Opv Top coat	Chemical nature	Solvent (%)	Solvent type	Dry content (%)	pH	MFFT (°C)	König (K)	Pearsoz (P) hardness (sec)	Elongation at break (%)
Water based acrylic emulsions													
AC 100	FCMD - Holo/sealable		x	x	AC	0	Solvent free	20	8.0-9.0	30	40 (K)		NA
AC 110	FCMD - Hydroxyl functional		x	x	AC	0	Solvent free	40	7.0-8.0	60	95 (K)		NA
AC 190	FCMD - Heatsealable			x	AC	0	Solvent free	46	7.0-8.0	10	25 (K)/55 (P)		260
AC 200	FCMD - Self crosslinking		x	x	AC	0	Solvent free	40	8.0-10.0	12	38 (K)		300
Water based urethane acrylic dispersions													
PU 147	Excellent film formation/hardness	x			PE	5	NEP	35	7.5-8.5	~0	136 (K)/254(P)		≈230
PU 148	Glossy/hard and versatile	x			PE	4.5	DPGDME	35	7.0-9.0	~0	93(K)/180(P)		≈230
PU 13	FCMD - Transfer coating	x			PE	<1	Acetone	35	8.0-10.0	~0	65(K)/139(P)		≈280
UA 7023	Self crosslinking / chemical resistance			x	PC	0	Solvent free	35	7.0-9.0	60	140 (K)		NA
Water based UV/EB curable polyurethane dispersions													
LX 7100	High performance and hardness		x	x	PC	<1	MEK	35	7.0-8.5	~0	150 (K)		NA
Water based BIOBASED polyurethane dispersions													
BiO 4900*	FCMD - 62% Bio based carbon	x		x	PES	<1	MEK	35	7.0-9.0	15	88 (K)		≈270
BiO 118	33% Bio based carbon content			x	PES	8	DPGDME	32	7.5-8.5	43	150(K)		NA
Water based INHERENTLY MATT polyurethane dispersions													
PU 940	UV resistant	x		x	PC	2	Acetal	28	7.0-9.0	~0	46(K)/90(P)		NA
PU 900	FCMD - Antifinger print	x		x	PE	0	Solvent free	32	7.0-9.0	~0	44(K)/81(P)		≈360
PU 960	Ultra soft	x		x	PE	0	Solvent free	39	7.0-9.0	~0	52(K)/101(P)		≈500
PU 980	Silky touch	x		x	PE	0	Solvent free	32	8.0-9.0	~0	35(K)/65(P)		≈250
PU 980 FC	FCMD - Silky touch	x		x	PE	0	Solvent free	32	8.0-9.0	~0	35(K)/65(P)		≈250
BIO 9001	66 % Bio based carbon content	x		x	PE	0	Solvent free	32	8.0-9.0	~0	35(K)/65(P)		≈250
Water based polyurethane dispersions													
PU C1	CATIONIC - High water resistance		x		PC	<1	MEK	30	4.0-6.0	~0	14(K)/42(P)		≈320
PU 931	NON IONIC - Lower hygroscopicity		x		PE	<1	Acetone	30	8.0-10.0	5	17(K)/30(P)		≈900
PU 3511	NON IONIC - Medium hygroscopicity		x		PES	4	DPGDME	30	7.0-9.0	~0	17(K)/30(P)		≈850
PU 6814	Excellent film formation/hardness	x		x	PC	14	NMP	35	7.0-9.0	~0	145(K)/280(P)		≈120
PU 39	Improved adhesion on plastic		x	x	PES	5	NEP	35	7.5-9.5	~0	38(K)/60(P)		≈500
PU 5044	Alkali resistant	x		x	PE	15	NEP	31	7.0-9.0	~0	160(K)		NA
PU 61	Antiscratch	x		x	PC	8	DPGDME	35	7.0-9.0	25	127(K)		≈200
PU 62	Improved adhesion on plastic		x	x	PES	5	DPGDME	35	7.0-9.0	~0	38(K)/57(P)		≈420
PU 7020	Flexibility / chemical resistance		x	x	PC	4	DPGDME	35	7.0-9.0	~0	33(K)/56(P)		≈320
SW3	FCMD - Modified siloxane			x	SIL	<1	Acetone	35	8.0-10.0	~0	15(K)/37(P)		≈700
PU 40	Excellent overall compatibility		x	x	PES	<1	MEK	35	7.5-9.5	~0	50(K)/75(P)		≈400
PU 4040*	FCMD - High compatibility		x	x	PES	<1	MEK	35	7.5-9.5	~0	48(K)		≈450
PU 4045*	FCMD - Good overcoatability		x	x	PES	<0.5	MEK	35	7.5-9.5	~0	NA		≈850
PU 77	Improved mech. / chemical resistance			x	PC	<0.5	MEK	35	7.0-9.0	35	105(K)		≈250
PU 825	Good adhesion on plastic and Al		x		PE	0	Solvent free	28	6.5-8.0	~0	29(K)/49(P)		≈450
Crosslinkers					Chemico-physical properties								
CATALYST AT5/N	Extended pot life	Polyaziridine			35	DPGME	65	-	-	Water Soluble			
CROSSLINKER 08	NCO Content: 11% as supplied	Polyisocyanate			30	Propylene carbonate	70	-	-	Easily dispersible			
Rheological modifiers					Chemico-physical properties								
VISCOLAM® PS 166	Low/Medium Shear HEUR				24	2 Butoxyethanol	40	5.0-7.0	-	KU builder			
VISCOLAM® PS 167	Low/Medium Shear HEUR				24	Butyldiglycol	40	5.0-7.0	-	KU builder			
VISCOLAM® PS 170 AIR	Low Shear HEUR				0	Solvent free	46.5	4.0-10.0	-	KU builder			
VISCOLAM® PS 202	High Shear HEUR				0	Solvent free	20	4.0-7.0	-	ICI builder			

* development product

Above data cannot be considered as supply specification.