

Solutions for waterborne inks

Binders for waterbased roto/flexo inks

- ESACOTE® PUDs, acrylic-urethane hybrids and acrylic emulsions are suitable options for flexo and rotogravure printing. They are adapted to adhere on the most commonly used substrates both porous, like paper and non-porous like BOPP, BOPET and PVC film.
- ESACOTE® PUDs for the formulation of lamination inks. Lamination can be performed via adhesive or thermally, as done for PVC flooring.
- ESACOTE® range provides good compatibility with most of the pigment dispersions tested.

Binders for waterbased Digital inks

- ESAJET PUDs, acrylic-urethane hybrids and acrylic emulsions especially designed to be easily re-dispersible and compatible with the most popular pigment paste.
- ESAJET PUDs, acrylic-urethane and acrylic emulsions can be quickly filtered through 1 μ sieve.
- ESAJET PUDs are good binders for the formulation of water-based digital inks.

Through our FLUIJET® range of polymeric hyper-dispersing agents we are able to support our customers in the preparation of inorganic and organic pigment dispersions for waterborne digital and conventional (gravure/flexo) inks.

- DECOSPHAERA®/SPHEROMERS® PU and AC beads as antiblocking additives or, at higher dosage, as texturizing additive in inks.
- ADIWAX wax emulsion for antiblocking and scratch improvement.

Water based resins as binders for wb inks information & typical value chart

Products families and main features

		Chemical properties					Film properties			
		Chemical nature	Solvent (%)	Solvent type	Dry content (%)	pH	MFFT (°C)	König (K) Persoz (P) hardness (sec)	Elongation at break (%)	
Water based acrylic emulsions										
AC 110	Hydroxyl functional	AC	0	Solvent free	40	7.0-8.0	60	95 (K)	NA	
AC 200	FCMD - Self crosslinking	AC	0	Solvent free	40	8.0-10.0	12	38 (K)	≈300	
Water based urethane acrylic dispersions										
PU 148	Glossy/hard and versatile	PE	4.5	DPGDME	35	7.0-9.0	<0	93(K)/180(P)	≈230	
PU 13	FCMD - Transfer coating	PE	<1	Acetone	35	8.0-10.0	0	65(K)/139(P)	≈280	
D8	FCMD - Soft and resoluble	PES	<1	Acetone	35	7.0-9.0	<0	22(K)/44(P)	NA	
Water based BIOBASED polyurethane dispersions										
BIO 4900*	62,2% Bio based carbon content	PES	<1	MEK	35	7.0-9.0	15	88 (K)	≈270	
Water based polyurethane dispersions										
PU 62	Improved adhesion on plastic	PES	5	DPGDME	35	7.0-9.0	0	38(K)/57(P)	≈420	
PU 7020	Flexibility / chemical resistance	PC	4	DPGDME	35	7.0-9.0	<0	33(K)/56(P)	≈320	
ST 47	Wider pH stability, high solids	PES	<1	Acetone	50	8.0-10.0	<0	8(K)/23(P)	≈800	
PU 78	Wider pH stability, high solids	PES	<1	Acetone	50	8.0-10.0	0	14(K)/30(P)	≈600	
PU 39	Excellent adhesion on plastic	PES	5	NEP	35	7.5-9.5	<0	28(K)/45(P)	≈500	
PU 40	Excellent overall compatibility	PES	<1	MEK	35	7.5-9.5	0	50(K)/75(P)	≈400	
PU 4040*	FCMD - High compatibility	PES	<1	MEK	35	7.5-9.5	0	48(K)	≈450	
PU 77	Improved mech. / chemical resistance	PC	<1	MEK	35	7.0-9.0	35	105(K)	≈250	
PU 825	FCMD - Adhesion on BOPET	PE	0	Solvent free	28	6.5-8.0	0	29(K)/49(P)	≈450	
PU 835*	FCMD - Adhesion on polyolefin	PE	0	Solvent free	35	7.0-9.0	0	33(K)/54(P)	≈600	
PU 850	FCMD - Inline coating BOPET	PE	0	Solvent free	28	6.5-8.0	0	39(K)/61(P)	≈400	
PU 173	TEA free - VOC free	PE	0	Solvent free	30	7.0-9.0	0	35(K)/58(P)	≈500	

Water based resins as binders for wb digital inks information & typical value chart

Water based acrylic emulsions										
AC 20	FCMD - Self crosslinking	AC	0	Solvent free	40	8.0-10.0	12	38 (K)	300	
Water based urethane acrylic dispersions										
PU 13	FCMD - Better mechanicals	PE	<1	Acetone	35	8.0-10.0	0	65(K)/139(P)	≈280	
D8	FCMD - Soft and resoluble	PES	<1	Acetone	35	7.0-9.0	<0	22(K)/44(P)	NA	
Water based polyurethane dispersions										
4518*	FCMD - Improved resolubility	PES	<1	MEK	35	7.5-9.5	0	NA	NA	

Hyper-dispersing agents		Chemico-physical properties							
FLUIJET® 1725	Universal - for pigments and dispersed dyes	MIX	0	Solvent free	40	7.5-8.5	NA	Better heat stability	
FLUIJET® 1730	Universal - for pigments	MIX	30	MPG	50	6.6 - 7.5	NA	Higher color yield	

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	Butyl carbitol	40	5.0-7.0	-	KU Builder	
VISCOLAM® PS 170 AIR*	Medium Shear HEUR	-	0	Solvent free	50	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.

AC acrylic product
PC polycarbonate
PE polyether
PES polyester

NA not applicable
FCMD food contact material declaration available
DPGME dipropylene glycol methyl ether
DPGDME dipropylene glycol dimethyl ether

This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards the observation of all legal regulations including patent laws. Detailed information on handling and specific precautions to be observed in the use of the product can be found in our relevant Health and Safety Information Sheets.