POLYURETHANE DISPERSIONS

ALIPHATIC POLYESTER AND POLYCARBONATE BASED PUDs

DESCRIPTION

Polyurethane dispersions (PUDs) are a core competency for Alberdingk Boley, Inc. They can be used in a wide range of applications, from soft feel leather and textile coatings to extremely abrasion resistant 2K floor coatings. PUDs provide an environmentally friendly alternative to solvent based polyurethane coatings while maintaining exceptional performance. They can be used alone as the single resin vehicle, but are also very effective in combination with other resins to boost formulation performance.

PRODUCT	SOLIDS (%)	pH	VISCOSITY (cPs)	ELONGATION AT BREAK (%)	KONIG HARDNESS (sec)	SOLVENT (%)
U 410	40	7.5	100	-	10	3.9
U 615	39	8.0	100	250	80	6.2
U 801	40	7.5	75	300	80	5.3
U 910	30	7.8	35	60	155	11.9
U 915	34	8.0	60	-	115	9.5
U 933	35	8.0	75	160	130	9.0

PRODUCT	BASE	DESCRIPTION	APPLICATIONS
U 410	Polyether	Extremely good adhesion to multiple substrates Excellent adhesion promoter	Leather Textiles
U 615	Polycarbonate	Good exterior durability Excellent chemical and abrasion resistance High gloss potential Good adhesion to plastics	Exterior wood coatings High gloss enamels General plastics Automotive basecoats
U 801	Polyester	Best exterior durability Good balance of hardness and flexibility Good block and chemical resistance	Exterior wood coatings Parquet varnishes High gloss enamels Wood furniture and joinery
U 910	Self cross-linking, Polyester	Excellent chemical and plasticizer resistance High gloss potential Good adhesion to PVC	Sports flooring Parquet varnishes High gloss enamels Wood furniture General plastics
U 915	Self cross-linking, Polycarbonate/ Polyester	Excellent gloss Excellent surface hardness Chemical and abrasion resistance	Superior 2K coatings Sports flooring Parquet flooring
U 933	Self cross-linking, Polycarbonate	Excellent weathering Excellent chemical and stain resistance Excellent water resistance	Parquet and sports flooring Wood furniture General plastics

POLYURETHANE DISPERSIONS

RENEWABLE RESOURCES: CASTOR OIL AND LINSEED OIL BASED ALIPHATIC PUDs

DESCRIPTION

Alberdingk Boley, Inc. is a leading global producer of castor oil and linseed oil. These renewable raw materials have long been used as conventional paint binders. Alberdingk has succeeded in modifying these oils for production of aqueous polyurethane dispersions, giving unique performance advantages over conventional PUDs. Castor and linseed oil based PUDs can be used in a wide range of applications including leather, textiles, wood furniture, floor coatings, and automotive basecoats.

PRODUCT	SOLIDS (%)	pH	VISCOSITY (cPs)	MFFT (°C)	ELONGATION AT BREAK (%)	KONIG HARDNESS (sec)	SOLVENT (%)
CUR 21	60	8.0	1200	0	700	20	0.0
CUR 69	35	8.0	50	0	175	95	6.6
CUR 99	30	7.5	40	0	60	115	6.8
CUR 991	30	8.0	100	40	70	65	0.0
LUR 3	35	7.0	200	0	-	90	0.0

PRODUCT	BASE	DESCRIPTION	APPLICATIONS
CUR 21	Castor Oil, Polyester	Low gloss High elongation	Soft feel leather and textiles
CUR 69	Castor Oil, Polycarbonate	High performance 1K & 2K wood floor finishes Excellent abrasion resistance Excellent chemical resistance Excellent black heel mark resistance	Parquet varnishes Sports flooring Wood furniture Automotive basecoats
CUR 99	Castor Oil	High performance 1K & 2K wood floor finishes Excellent gloss Excellent surface hardness	DIY varnishes Parquet varnishes Wood furniture Automotive basecoats
CUR 991	Castor Oil	Solvent-free version of CUR 99 Good in-can clarity Better wood-warming Excellent abrasion resistance	DIY varnishes Sports flooring High gloss enamels Wood furniture Automotive basecoats
LUR 3	Linseed Oil	Very high gloss Very good weathering resistance Excellent gloss retention	Exterior wood coatings DIY varnishes Wood furniture Architectural coatings

POLYURETHANE DISPERSIONS

SOLVENT FREE ALIPHATIC PUDs AND COPOLYMERS

DESCRIPTION

Using innovative manufacturing processes, Alberdingk Boley, Inc. has developed a line of new generation solvent-free PUDs which allow the formulation of non NMP, very low VOC coatings with excellent performance characteristics. These products can be used in a wide range of applications, from soft feel leather coatings to extremely abrasion resistant 2K floor coatings.

PRODUCT	SOLIDS (%)	pH	VISCOSITY (cPs)	MFFT (°C)	ELONGATION AT BREAK (%)	KONIG HARDNESS (sec)
CUR 21	60	8.0	1200	0	700	20
CUR 991	30	8.0	100	40	70	85
U 2101	60.5	8.5	900	0	800	30
U 3100	33	8.5	100	0	800	20
U 5201	40	7.0	200	0	500	30
U 6150	39	8.0	200	0	200	70
U 6300	33	8.0	200	0	350	50
U 6800	33	8.5	100	0	-	45
U 9150	35	8.5	100	5	100	30
U 9370	30	8.0	100	32	-	130
U 9380	32.5	8.5	2000	25	50	130
U 9800	35	8.5	150	40	20	100
UC 80	35	7.5	30	35	-	100
UC 84	35	8.0	100	40	-	105

Solvent-free Polyurethane Dispersions

PRODUCT	BASE	DESCRIPTION	APPLICATIONS
CUR 21	Castor Oil, Polyester	Soft polymer with low gloss Very high elongation	Soft feel leather coatings Textile coatings
CUR 991	Castor Oil	Solvent-free version of CUR 99 Better wood warming Excellent black heel mark resistance Very good abrasion resistance In-can clarity	DIY and parquet varnishes High gloss enamels Wood furniture Automotive basecoats
U 2101	Polyester	Soft polymer with low gloss Very high elongation Excellent adhesion to plastics	Soft feel leather coatings Textile coatings Plastics
U 3100	Polyester	Soft polymer with high flexibility Good block resistance High in-can clarity	Leather coatings Textile coatings Basecoats for plastic
U 5201	Polyester	Excellent water resistance, Used for high quality topcoats	Leather topcoats Artificial leather coatings Textile coatings
U 6150	Polycarbonate	Solvent-free version of U 615 Outstanding water resistance Outstanding adhesion High gloss High in-can clarity	DIY and parquet varnishes Low VOC enamels General plastics Industrial coatings Automotive refinishes and basecoats
U 6300	Polyester	Very good adhesion to plastics Very good binder for pigmented systems	Plastic coatings Automotive base coats PVC foils
U 6800	Polycarbonate	Excellent adhesion to multiple substrates	Plastic coatings Metal coatings
U 9150	Polyester, Polycarbonate	Solvent-free version of U 915 Very high surface hardness Superior abrasion resistance High in-can clarity	2K parquet varnishes Sports flooring
U 9370	Polyester	Excellent chemical resistance Excellent adhesion to multiple substrates Good compatibility with acrylic dispersions	Plastic coatings VCT floor coatings Wood coatings
U 9380	Polyester	Outstanding adhesion properties Excellent chemical resistance Excellent surface hardness Good flexibility	Parquet varnishes Sports flooring Industrial coatings General plastics
U 9800	Polyester	Excellent surface hardness Excellent hot water resistance Excellent adhesion to vinyl	Furniture Parquet varnishes Sports flooring Industrial coatings General plastics
UC 80	Polyester / Acrylic Copolymer	Excellent scratch resistance Excellent abrasion resistance Excellent adhesion to aluminum	Wood furniture Parquet varnishes Topcoats
UC 84	Polycarbonate / Acrylic Copolymer	Outstanding alkali and water resistance Excellent block resistance Quick hardness development High in-can clarity	DIY and parquet varnishes Industrial coatings Furniture General plastics