

MIRATHANE[®]

TPU | ETPU | PUD | PUR | EPUR | PBS | EPBS



Miraccl Chemicals Co., Ltd. (Code: 300848.SZ) is the leading manufacturer of polyurethane specialty under the brand name of Mirathane®.

Mirathane® polyurethane materials include TPU/ETPU/PUD/PUR/EPUR/PBS/EPBS products, with excellent physical properties and environmental features, are widely used for footwear, electronics, film and sheet, hose and tube, wire and cable, automotive, conveyor belt, seal and gasket, wheel and caster, coating and adhesive, agriculture, construction, mining applications.

We are dedicated to becoming a world-class new material supplier, and providing creative solutions for every need of customers with years of experience and creative solutions. Your demand is our direction.



ISO9001

ISO14001

ISO45001

GB/T29490

IATF16949

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E Series, Polyester-Based TPU

Features: Excellent Hydrolysis Resistance, Low Compression Set, Oil Resistance, Chemical Resistance, Good Abrasion Resistance, High Resilience Performance.

Applications: Oil Tube, Seal&Gasket, Automotive Parts, Industry Hose, Bellows, Wire&Cable, Compounding&Modification, etc.

Properties		Standard	Unit	E80	E85	E90	E95
Density		ASTM D792	g/cm ³	1.19	1.19	1.19	1.2
Hardness		ASTM D2240	A/D	82/-	86/-	92/-	95/-
Tensile Strength		ASTM D412	MPa	35	40	42	45
100% Modulus		ASTM D412	MPa	5	6	8	10
300% Modulus		ASTM D412	MPa	10	12	16	20
Elongation at Break		ASTM D412	%	550	500	450	400
Tear Strength		ASTM D624	kN/m	100	110	120	140
Compression Set	22hours @70°C	ASTMD395	%	45	45	40	40
	72hours @23°C		%	25	15	20	20

NOTE: The above values are shown as typical values and should not be used as specifications.



E1 Series, Polyester-Based TPU

Features: Excellent Abrasion Resistance, Oil/Chemicals Resistance, Good Resilience Performance, High Pressure Resistance, Outstanding Mechanical Properties.

Applications: Conveyor Belt, Hose&Tube, Seal&Gasket, Compounding, Wire&Cable, Automotive, Footwear, Caster, Film, Overmolding, etc.

Properties		Standard	Unit	E175	E180	E185	E190	E195	E155D	E165D	E175D
Density		ASTM D792	g/cm ³	1.18	1.19	1.19	1.19	1.2	1.21	1.21	1.22
Hardness		ASTM D2240	A/D	75/-	82/-	86/-	92/-	95/-	-/55	-/65	-/75
Tensile Strength		ASTM D412	MPa	20	30	35	45	50	42	45	40
100% Modulus		ASTM D412	MPa	3	4	6	9	11	15	22	30
300% Modulus		ASTM D412	MPa	6	8	10	20	23	30	40	35
Elongation at Break		ASTM D412	%	600	550	550	450	400	380	350	300
Tear Strength		ASTM D624	kN/m	70	90	100	125	145	160	220	240
Compression Set	22 hours @70°C	ASTMD395	%	/	40	43	46	45	48	50	50
	72 hours @23°C		%	/	28	15	30	32	20	21	18

NOTE: The above values are shown as typical values and should not be used as specifications.



E1L Series, Polyester-Based TPU

Features: Excellent Processing Properties, Fast Setting Time, No Migration, UV Resistance, Excellent Flowability.

Applications: Phone&Pad Cover, Conveyor Belt, Hose&Tube, Wire&Cable, Footwear, Caster, Film, Coating, Overmolding, etc.

Properties	Standard	Unit	E185L	E190L	E195L
Density	ASTM D792	g/cm ³	1.19	1.19	1.2
Hardness	ASTM D2240	A/D	86/-	92/-	95/-
Tensile Strength	ASTM D412	MPa	20	35	40
100% Modulus	ASTM D412	MPa	6	10	12
300% Modulus	ASTM D412	MPa	8	20	22
Elongation at Break	ASTM D412	%	600	500	500
Tear Strength	ASTM D624	kN/m	90	120	140

NOTE: The above values are shown as typical values and should not be used as specifications.



E2 Series, Polyester-Based TPU

Features: Excellent Abrasion Resistance, Slip Resistance, Favorable Hand Feeling, Low Temperature Flexibility.

Applications: Footwear, Compounding&Modification, Overmolding, Tubes, Belt, etc.

Properties	Standard	Unit	E255	E260	E265	E270	E275
Density	ASTM D792	g/cm ³	1.18	1.18	1.18	1.19	1.19
Hardness	ASTM D2240	A/D	54/-	63/-	67/-	73/-	77/-
Tensile Strength	ASTM D412	MPa	15	15	20	23	25
100% Modulus	ASTM D412	MPa	1	2	3	4	4
300% Modulus	ASTM D412	MPa	3	3	5	6	6
Elongation at Break	ASTM D412	%	750	750	700	650	600
Tear Strength	ASTM D624	kN/m	45	50	65	70	75
DIN Abrasion Loss	DIN 53516	mm ³	85	80	60	70	80

NOTE: The above values are shown as typical values and should not be used as specifications.



E3 Series, Polyester-Based TPU

Features: Excellent Processing Properties, Fast Setting Time, No Migration, Excellent Transparency, Easy for Electroplating and Printing.

Applications: Phone&Pad Cover, Footwear, Compounding&Modification, Wheel&Caster, Pneumatic Tube, Overmolding, Tapes, Tyre Chain, Films etc.

Properties	Standard	Unit	E365	E375	E380	E385	E390	E395	E355D
Density	ASTM D792	g/cm ³	1.18	1.19	1.19	1.2	1.2	1.21	1.21
Hardness	ASTM D2240	A/D	67/-	80/-	83/-	87/-	93/-	95/-	-/55
Tensile Strength	ASTM D412	MPa	20	28	35	38	40	40	35
100% Modulus	ASTM D412	MPa	2	4	5	6	10	13	14
300% Modulus	ASTM D412	MPa	6	8	9	10	13	22	22
Elongation at Break	ASTM D412	%	600	600	550	500	450	400	400
Tear Strength	ASTM D624	kN/m	65	100	110	115	130	145	150

NOTE: The above values are shown as typical values and should not be used as specifications.



E5 Series, Polyester-Based TPU

Features: Wide Processing Windows, Good HF Welding Performance, Easy Cutting, Abrasion Resistance, Good Adhesive Properties.

Applications: Conveyor Belt, Calendered Film, T-Die Film, Compounding&Modification etc.

Properties	Standard	Unit	E585	E590
Density	ASTM D792	g/cm ³	1.18	1.2
Hardness	ASTM D2240	A/D	85/-	90/-
Tensile Strength	ASTM D412	MPa	25	25
100% Modulus	ASTM D412	MPa	5	7
300% Modulus	ASTM D412	MPa	8	12
Elongation at Break	ASTM D412	%	600	500
Tear Strength	ASTM D624	kN/m	80	95

NOTE: The above values are shown as typical values and should not be used as specifications.



E6 Series, Polyester-Based TPU

Features: Excellent Transparency, Less Fisheye, Migration Resistance, UV Resistance.

Applications: Hose&Tube, Air Cushion, T-Die Film, High Transparent Articles, etc.

Properties	Standard	Unit	E685	E690	E695	E655D	E665D
Density	ASTM D792	g/cm ³	1.18	1.19	1.2	1.2	1.2
Hardness	ASTM D2240	A/D	86/-	91/-	94/-	-/55	-/65
Tensile Strength	ASTM D412	MPa	35	38	43	45	40
100% Modulus	ASTM D412	MPa	5	8	12	15	22
300% Modulus	ASTM D412	MPa	15	16	25	28	33
Elongation at Break	ASTM D412	%	500	450	450	350	350
Tear Strength	ASTM D624	kN/m	110	130	145	165	200

NOTE: The above values are shown as typical values and should not be used as specifications.



E*U Series, Polyester-Based TPU

Features: Excellent Transparency, Excellent UV Resistance, Good Processing, Good Migration Resistance, Good Colorability, Suitable for Electroplating, Printing, Coating and other Secondary Processing Technology.

Applications: Phone&Pad Cover, Watchband, Footwear, etc.

Properties	Standard	Unit	E85U	E90U	E95U	E195LU	E55DU
Density	ASTM D792	g/cm ³	1.18	1.18	1.18	1.2	1.19
Hardness	ASTM D2240	A/D	88/-	92/-	95/-	95/-	-/55
Tensile Strength	ASTM D412	MPa	38	40	42	45	44
100% Modulus	ASTM D412	MPa	8	10	12	12	14
300% Modulus	ASTM D412	MPa	14	24	25	25	30
Elongation at Break	ASTM D412	%	500	450	400	450	380
Tear Strength	ASTM D624	kN/m	110	125	145	145	160
Yellowing Resistance	ASTM D1148	Grade	4	4	4	4.5	4

NOTE: The above values are shown as typical values and should not be used as specifications.



M Series, Polyether-Based TPU

Features: Excellent Hydrolysis Resistance, Low Temperature Flexibility, Fungus Resistance, Aging Resistance, Weathering Resistance.

Applications: Lay-Flat Hose, Fire Hose, Tubes, Flexitank, Wire&Cable, Fabric Coating, Film&Sheet, Animal Ear Tag, Smart Watchband, etc.

Properties	Standard	Unit	M70	M75	M80	M85	M88	M90	M95	M55D	M65D
Density	ASTM D792	g/cm ³	1.10	1.10	1.10	1.11	1.11	1.12	1.14	1.16	1.17
Hardness	ASTM D2240	A/D	70/-	74/-	80/-	86/-	88/-	92/-	95/-	-/55	-/65
Tensile Strength	ASTM D412	MPa	15	18	25	30	35	38	40	35	45
100% Modulus	ASTM D412	MPa	2	3	5	7	8	10	12	15	25
300% Modulus	ASTM D412	MPa	4	5	9	15	18	20	30	28	40
Elongation at Break	ASTM D412	%	700	700	600	500	450	450	400	400	350
Tear Strength	ASTM D624	kN/m	60	65	80	95	100	120	140	145	180

NOTE: The above values are shown as typical values and should not be used as specifications.



M1 Series, Polyether-Based TPU

Features: High Moisture Vapor Transmission, Less Fisheye, Good Hand Feeling.

Applications: Medium and High Moisture Vapor Transmission Film.

Properties	Standard	Unit	M180	M185	M190
Density	ASTM D792	g/cm ³	1.2	1.2	1.21
Hardness	ASTM D2240	A	80	83	90
Tensile Strength	ASTM D412	MPa	20	25	30
Elongation at Break	ASTM D412	%	700	700	600
Tear Strength	ASTM D624	kN/m	90	90	100
MVT	ASTM E96BW2000	g/m ² /24h	>10000	>9000	>7000

NOTE: The above values are shown as typical values and should not be used as specifications.



A Series, Aliphatic TPU

Features: Non-Yellowing, Excellent Transparency, Migration Resistance, Less Fisheye.

Applications: PPF for Automotive, Automotive Interior Decoration, Watchband, Hose&Tube, Wire&Cable, Optical Glasses, Film, etc.

Properties	Standard	Unit	A285	A290	A295	A690
Density	ASTM D792	g/cm ³	1.13	1.16	1.18	1.25
Hardness	ASTM D2240	A/D	88/-	90/-	95/-	90/-
Tensile Strength	ASTM D412	MPa	24	25	30	25
100% Modulus	ASTM D412	MPa	5	6	13	7
300% Modulus	ASTM D412	MPa	13	15	28	15
Elongation at Break	ASTM D412	%	400	350	320	350
Tear Strength	ASTM D624	kN/m	75	85	145	95

NOTE: The above values are shown as typical values and should not be used as specifications.



G Series, Bio-Based TPU

Features: Bio-Based(25%-70% according to ASTM-D6866), Environmental Friendly, Fast Setting Time, Excellent Elasticity, Customized According to Customer Requirements.

Applications: Footwear, Electronics, Automotive, Sports&Leisures, Medical Care, Overmolding, Film&Sheet, Compounding&Modification, etc.

Properties	Standard	Unit	G185	G195	G375	G685	G695	H680G
Density	ASTM D792	g/cm ³	1.2	1.2	1.18	1.2	1.2	1.2
Hardness	ASTM D2240	A/D	85/-	94/-	77/-	86/-	94/-	70/-
Tensile Strength	ASTM D412	MPa	32	40	20	26	30	15
100% Modulus	ASTM D412	MPa	5	12	3	7	15	3
300% Modulus	ASTM D412	MPa	15	25	6	12	25	4
Elongation at Break	ASTM D412	%	550	390	650	550	400	1000
Tear Strength	ASTM D624	kN/m	90	145	70	90	130	50
Bio-Based Content		%	41	33	28	29	28	28

NOTE: The above values are shown as typical values and should not be used as specifications.



V Series, TPSiU[®]Elastomers

Features: Silky Hand Feeling, Solvent/Chemical Resistance, Low Migration, Good Weathering Resistance, Good Thermostability, Good Coloring Performance, Anti-Dust, Easy Cleaning, Fast Setting Time, Easy Demolding, Good Biocompatibility, Anti-Allergy, Fungus Resistance.

Applications: Electronics, Watchband, Wire&Cable, Film, Overmolding, Compounding, etc.

Properties	Standard	Unit	V170	V180
Density	ASTM D792	g/cm ³	1.08	1.12
Hardness	ASTM D2240	A	70	82
Tensile Strength	ASTM D412	MPa	13	18
100% Modulus	ASTM D412	MPa	3	6
300% Modulus	ASTM D412	MPa	5	10
Elongation at Break	ASTM D412	%	900	800
Tear Strength	ASTM D624	kN/m	47	70

NOTE: The above values are shown as typical values and should not be used as specifications.



C Series, Polycarbonate-Based TPU

Features: Excellent Aging Resistance, Oil Resistance, Hydrolysis Resistance, High Temperature Resistance, UV Resistance, Excellent Physical Properties&Weathering Resistance.

Applications: Hose&Tube, Film&Sheet, Fire Hose, Lay-Flat Hose, Shale Gas Tube, Oil Tank, Conveyor Belt, etc.

Properties	Standard	Unit	C80	C85	C90	C95
Density	ASTM D792	g/cm ³	1.15	1.16	1.18	1.20
Hardness	ASTM D2240	A/D	82/-	85/-	90/-	95/-
Tensile Strength	ASTM D412	MPa	25	30	35	45
100% Modulus	ASTM D412	MPa	7	8	12	20
300% Modulus	ASTM D412	MPa	14	20	30	40
Elongation at Break	ASTM D412	%	550	500	400	350
Tear Strength	ASTM D624	kN/m	90	120	130	180

NOTE: The above values are shown as typical values and should not be used as specifications.



I Series, Engineering TPU

Features: Excellent High Temperature Resistance, Good Abrasion and Scratch Resistance, Good Oil Resistance, Good Transparency, Outstanding Strength.

Applications: Oil-Water Separator, Medical, Eyeglass Frames, Shell, Connector, etc.

Properties	Standard	Unit	I80D	I85D
Density	ASTM D792	g/cm ³	1.2	1.2
Hardness	ASTM D2240	A/D	-/80	-/85
Tensile Strenght at Yield	ISO 527	MPa	60	82
Tensile Strenght at Break	ISO 527	MPa	50	68
Elongation at Yield	ISO 527	%	6	8
Elongation at Break	ISO 527	%	150	65
Flexural Strength	ASTM D790	MPa	60	95
Flexural Modulus	ASTM D790	MPa	2000	2300
Notched Impact Strength	ASTM D256	J/m	90	100
HDT(0.45MPa, Unannealed)	ASTM D648	°C	90	132

NOTE: The above values are shown as typical values and should not be used as specifications.



L Series, Polycaprolactone-Based TPU

Features: Excellent Hydrolysis Resistance, Oil Resistance, Abrasion Resistance, Resilience Performance, Low Temperature Flexibility.

Applications: Oil Seal, Footwear, Conveyor Belt, Hose&Tube, Wire&Cable, Wheel&Caster, etc.

Properties	Standard	Unit	L80	L85	L90	L95	L55D	L65D	L75D
Density	ASTM D792	g/cm ³	1.19	1.19	1.19	1.2	1.21	1.21	1.22
Hardness	ASTM D2240	A/D	82/-	86/-	92/-	95/-	-/55	-/65	-/75
Tensile Strength	ASTM D412	MPa	38	40	45	50	52	55	60
100% Modulus	ASTM D412	MPa	5	8	12	17	18	24	34
300% Modulus	ASTM D412	MPa	10	16	27	32	38	42	45
Elongation at Break	ASTM D412	%	550	500	450	400	380	350	300
Tear Strength	ASTM D624	kN/m	110	130	150	170	180	210	220

NOTE: The above values are shown as typical values and should not be used as specifications.



Solvent Adhesive TPU

Features: Good Solvent Solubility, Fast Crystallization, Excellent Green Bonding Strength and Final Bonding Strength, Customized According to Customer Requirements.

Applications: Footwear, Fabric Coating, Fire Hose Adhesive, Hotmelt Adhesive Films and Tapes, Solvent Adhesive, etc.

Properties	Standard	Unit	H101	H103	H206	H212	H220	H230	H306	H320	H406	H410	H420	H670
Density	ASTM D792	g/cm ³	1.15	1.15	1.2	1.2	1.2	1.2	1.16	1.16	1.16	1.16	1.16	1.2
Hardness	ASTM D2240	A	90	90	95	95	95	95	95	95	93	93	93	65
Tensile Strength	ASTM D412	MPa	15	18	35	38	40	40	20	30	25	28	30	15
Elongation at Break	ASTM D412	%	700	650	650	650	650	650	650	650	750	700	650	1000
Tfb	-	°C	60	60	85	85	90	90	90	100	85	88	90	75
Viscosity (15% in MEK, 25°C)	ISO3219	cps	50-100	100-400	300-800	800-1500	1500-2500	2500-3500	300-800	1500-2500	300-800	800-1500	1500-2500	80-200
Tack-Free Time	-	min	3	3	13	14	15	15	6	6	25	30	30	5
Minimum Activation Temperature	-	°C	55~65	55~65	55~65	55~65	55~65	55~65	60~70	60~70	55-65	55-65	55-65	55-65

NOTE: The above values are shown as typical values and should not be used as specifications.



Hotmelt Adhesive TPU

Features: Excellent Elasticity, High Bonding&Peeling Strength, Outstanding Recovery Property.

Applications: Hotmelt Film and Tape, Fabric Coating, Toe Puffs&Counters, etc.

Properties	Standard	Unit	H190E	H220E	H290	H290H	H295	H370	H570	H680	H680U	H680A	H690	H70A
Density	ASTM D792	g/cm ³	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Hardness	ASTM D2240	A	97	95	97	97	95	70	75	80	80	80	90	75
Tensile Strength	ASTM D412	MPa	25	35	20	25	25	15	15	25	25	25	30	20
Elongation at Break	ASTM D412	%	800	650	700	700	700	800	800	600	600	750	450	800
Tfb	-	°C	70	85	60	60	60	97	95	110	110	110	135	95
Tack-Free Time	-	min	5	13	4	4	3	10	8	6	6	1	4	3

NOTE: The above values are shown as typical values and should not be used as specifications.



F Series, ETPU[®] Elastomers

Features: Low Density, Good Rebounding, Slip Resistance, Chemical Resistance, Environmental Friendly, UV Resistance, Steam Moulding&Adhesive Processing.

Applications: Sport Shoe Sole, Vibration Decoupling, Foaming Wheel, Bike Saddle, Yoga Mat, Packaging and Dunnage Trays in the Logistics, Automotive Interior Materials, etc.

Properties	Standard	Unit	F910	F815	F710	F710T	F615	F610
Density	ASTM D792	g/cm ³	0.11	0.16	0.14	0.11	0.15	0.12
Hardness	-	C	43-50	38-45	41-45	43-45	40-42	38-40
Tensile Strength	ASTM D412	MPa	1.5	1.3	1.5	1.6	1.8	1.5
Elongation at Break	ASTM D412	%	150	170	200	150	200	200
Tear Strength	ASTM D624-00	kN/m	12	15	15	15	20	15
Rebounding	ISO 8307	%	70	60	68	68	45	65
Compression Set	50% 16h/50°C /After 30min Test	%	30	30	30	30	30	30
Yellowing Resistance	ASTM D1148	Grade	4.5	4	4.5	4.5	4	4.5

NOTE: The above values are shown as typical values and should not be used as specifications.



Halogen-Free Flame Retardant TPU

Features: Ether/Ester, Halogen-Free Flame Retardant, Matte Effect, Excellent Hydrolysis Resistance, Low Temperature Flexibility, Abrasion Resistance, Low Smoke&Toxicity, Good Thermal and Oil Aging Performance, Customized.

Applications: Wire&Cable, Film&Sheet, Hose&Tube, Electronics, Automotive Parts, etc.

Properties	Standard	Unit	E180F	E190F	M80F	M85F	M90F	M85Z	M85W	M90W	E185W
Density	ASTM D792	g/cm ³	1.2	1.2	1.2	1.15	1.15	1.16	1.13	1.13	1.2
Hardness	ASTM D2240	A	83	93	82	85	90	88	85	92	87
Tensile Strength	ASTM D412	MPa	26	28	20	25	25	15	24	28	30
100% Modulus	ASTM D412	MPa	4	9	5	5	6	6	9	10	6
300% Modulus	ASTM D412	MPa	6	12	9	9	12	11	14	15	10
Elongation at Break	ASTM D412	%	650	600	550	500	400	400	520	400	500
Tear Strength	ASTM D624	kN/m	95	100	80	80	85	75	95	110	100
FR Property	UL 94	-	V-0	V-0	V-2	V-0/V-2	V-0/V-2	V-0	-	-	-
Other Properties	-	-	White	White	Transparent &Black	Transparent &White	Transparent &White	Matt	Matt	Matt	Matt

NOTE: The above values are shown as typical values and should not be used as specifications.



Antistatic TPU

Features: Transparent, Permanent Antistatic, Excellent Mechanical Properties, Heat Resistance, Customized.

Applications: Conveyor Belt, Oil Tubes, Wire&Cable and Other Areas That Require Anti-Dust and Antistatic.

Properties	Standard	Unit	E70S	E80S	E85S	E90S
Density	ASTM D792	g/cm ³	1.2	1.2	1.2	1.2
Hardness	ASTM D2240	A	72	80	85	90
Tensile Strength	ASTM D412	MPa	24	26	34	38
100% Modulus	ASTM D412	MPa	3	4	6	10
300% Modulus	ASTM D412	MPa	6	8	12	15
Elongation at Break	ASTM D412	%	700	650	600	550
Tear Strength	ASTM D624	kN/m	70	80	90	100
Surface Resistivity	GB1410	Ω	10 ⁹	10 ¹⁰	10 ¹¹	10 ¹¹

NOTE: The above values are shown as typical values and should not be used as specifications.



Functional Masterbatch

Features: Dye, Anti-Yellowing, Anti-Bacterial, Anti-Sticking Masterbatch and Customized Masterbatch.

Applications: Phone&Pad Cover, Smart Wear, Shoes, Films and Other Fields That Have Yellowing Resistance, Anti-Bacterial, Anti-Sticking Application.

Performance	Standard	Unit	E10U	E15B	M10R	E10R
Density	ASTM D792	g/cm ³	1.2	1.2	1.2	1.15
Recommended Dosage	-	%	2-8	2-8	2-8	2-8
Product Features	-	-	UV Masterbatch	Antibacterial Masterbatch	Anti-Sticking Masterbatch	Anti-Sticking Masterbatch
Other Performance	-	Translucent	Translucent	Translucent	Translucent	Translucent

NOTE: The above values are shown as typical values and should not be used as specifications.



Reactive Polyurethane Adhesive for Textile (PUR)

Features: Good Processing Property, Appropriate Initial Strength, Multi-Functional and Excellent Final Strength.

Applications: Textile Lamination, such as Fabric-Film, Fabric-Fabric, Leather-Sponge, etc.

Features	Standards	Units	R3005	R4305T	R3025
Appearance	Enterprise Standard	-	Transparent or Slight-Yellow Fluid	White or Slight-Yellow Solid	White or Slight-Yellow Solid
Viscosity	Enterprise Standard	cps/100°C	3000	2000	12500
Density	ASTM D792	g/cm ³	1.15	1.15	1.15
Open Time	Enterprise Standard	min	≥ 20	≥ 20	≥ 10

NOTE: The above values are shown as typical values and should not be used as specifications.



Reactive Polyurethane Adhesive for Flexible Packaging (PUR)

Features: High Efficiency, Slight Glue Mist and Excellent Peel Strength.

Applications: Flexible Packaging Lamination, such as Paper-Plastic and Plastic-Plastic.

Features	Standards	Units	R6501	R6502	R3002
Appearance	Enterprise Standard	-	Transparent or Slight-Yellow Fluid	Transparent or Slight-Yellow Fluid	Transparent or Slight-Yellow Fluid
Viscosity	Enterprise Standard	cps/100°C	750	750	2000
Density	ASTM D792	g/cm ³	1.10	1.10	1.15
Open Time	Enterprise Standard	min	≥ 30	≥ 30	≥ 20

NOTE: The above values are shown as typical values and should not be used as specifications.



Reactive Polyurethane Adhesive for Edge Bonding (PUR)

Features: High Initial Strength, Quick Setting and Excellent Bonding Strength.

Applications: Edge Bonding.

Features	Standards	Units	R6100K	R6100W
Appearance	Enterprise Standard	-	Natural or Slight-Yellow Solid	White or Slight-Yellow Solid
Viscosity	Enterprise Standard	cps/140°C	100000	100000
Density	ASTM D792	g/cm ³	1.15	1.15
Open Time	Enterprise Standard	s	≤ 30	≤ 30

NOTE: The above values are shown as typical values and should not be used as specifications.



Water-Based Polyurethane Adhesive

Features: Fast Thermal Activation, High initial Tacky Property and Bonding Strength, Excellent Heat Resistance, Solvent-Free, Environmentally Friendly, etc.

Applications: Textile Lamination, Footwear, Auto Interior, etc.

Properties	Unit	Standard	H811KW	H812KW	H860W	H863W
Appearance	/	Enterprise Standard	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid
Soild Content	%	ASTM D6980	45-50	45-50	45-50	45-50
Viscosity	mPa·s	ASTM D2196	10000-14000	10000-14000	10000-14000	8000-12000
Density	g/cm ³	GB/T 4472	1.02-1.09	1.02-1.09	1.02-1.09	1.02-1.09
PH	/	GB/T 14518	6.0-9.0	6.0-9.0	6.0-9.0	6.0-9.0
Activation Temperature	°C	Enterprise Standard	55-60	55-60	50-55	45-50
MFFT	°C	Enterprise Standard	5	5	5	5
Application	/	/	1K Adhesive for Footwear	2K Adhesive for Footwear	Textile Lamination	Auto Interior

NOTE: The above values are shown as typical values and should not be used as specifications.



Water-Based Polyurethane Resin for Adhesive

Features: Fast Thermal Activation, High Initial Tacky Property and Bonding Strength, Excellent Heat Resistance, Solvent-Free, Environmentally Friendly, etc.

Applications: Thermally Activated Adhesives for Various Materials, such as Textile Lamination, Footwear, Auto Interior, 3D Lamination, etc.

Properties	Unit	Standard	U1115H	U1115	U1115L	U1215
Appearance	/	Enterprise Standard	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid
Soild Content	%	ASTM D6980	48-52	48-52	48-52	48-52
Viscosity	mPa·s	ASTM D2196	500-2000	500-2000	500-2000	500-2000
Density	g/cm ³	GB/T 4472	1.02-1.09	1.02-1.09	1.02-1.09	1.02-1.09
PH	/	GB/T 14518	6.0-9.0	6.0-9.0	6.0-9.0	6.0-9.0
Activation Temperature	°C	Enterprise Standard	55-60	50-55	45-50	55-60
MFFT	°C	Enterprise Standard	5	5	5	5

NOTE: The above values are shown as typical values and should not be used as specifications.



Water-Based Polyurethane Resin for Textile Coating Printing

Features: Good Fastness, Soft and High Elastic, Excellent Cold Flexing, Ageing and Hydrolysis Resistance, High Saturation, Environmentally Friendly, etc.

Applications: Shoes Printing, Clothing Printing, etc.

Properties	Unit	Standard	U1104	U1105	U1106	U1305	U1914
Appearance	/	Enterprise Standard	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid
Soild Content	%	ASTM D6980	43-47	48-52	53-57	45-50	45-50
Viscosity	mPa-s	ASTM D2196	500-2000	500-2000	500-2000	500-2000	500-2000
100% Modulus	Mpa	ASTM D412	1.9	1.83	1.46	1.72	3.62
300% Modulus	Mpa	ASTM D412	2.95	2.31	1.87	2.85	27.89
Tensile Strength	Mpa	ASTM D412	28	40	43	30	44
Elongation	%	ASTM D412	610	620	695	600	330

NOTE: The above values are shown as typical values and should not be used as specifications.



Water-Based Polyurethane Resin for Synthetic Leather

Features: Soft Handle, Smooth, Excellent Cold Flexing, Abrasive Resistance, Alcohol Resistance, Jungle Resistance, Environmentally Friendly, etc.

Applications: Microfiber, Synthetic Leather.

Properties	Unit	Standard	U2104	U2105	U2205	U2305	U2914
Appearance	/	Enterprise Standard	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid	Milky White Liquid
Soild Content	%	ASTM D6980	43-47	48-52	45-50	45-50	45-50
Viscosity	mPa-s	ASTM D2196	500-2000	500-2000	500-2000	500-2000	500-2000
100% Modulus	Mpa	ASTM D412	1.9	1.83	1.2	1.72	3.62
300% Modulus	Mpa	ASTM D412	2.95	2.31	1.8	2.85	27.89
Tensile Strength	Mpa	ASTM D412	28	40	12	30	44
Elongation	%	ASTM D412	610	620	700	600	330

NOTE: The above values are shown as typical values and should not be used as specifications.



Water-Based Polyurethane Resin for Surface Finishing

Features: High Gloss Products: Soft Gloss, High Elastic, Soft Handle, Ageing Resistance, High Saturation, etc.

Self-Matt Products: No Additional Matting Powder, Smooth, Excellent Abrasive and Ageing Resistance, High Tensile Strength and Elongation etc.

Applications: Surface Finishing for Leather, Paper, Packaging Label.

Properties	Unit	Standard	U6904	U6104	U6204
Appearance	/	Enterprise Standard	Milky White Liquid	Milky White Liquid	Milky White Liquid
Soild Content	%	ASTM D6980	38-42	38-42	38-42
Viscosity	mPa·s	ASTM D2196	500-2000	500-2000	500-2000
100% Modulus	Mpa	ASTM D412	4.5	3.5	2.4
300% Modulus	Mpa	ASTM D412	19.5	8.6	4.5
Tensile Strength	Mpa	ASTM D412	40	30	50
Elongation	%	ASTM D412	400	450	500
Gloss (60°)	GU	ASTM D523	<1	<10	120~130

NOTE: The above values are shown as typical values and should not be used as specifications.



Hydrophilic Hardener

Features: High Functionality, Low Viscosity, Good Dispersibility and Long Pot Life, etc.

Applications: Suitable for Various Hydroxyl Functionalized Dispersions for 2k Solutions, such as PUD Adhesive, Textile Printing and Synthetic Leather, etc.

Properties	Unit	Standard	H300W	H300WL
Appearance	/	Enterprise Standard	Transparent or Slightly Yellowish Liquid	Blue Liquid
NCO Content	wt%	GB 12009.4-2016	21.5-22.5	21.5-22.5
Viscosity (25°C)	mPa·s	ASTM D2196	500-2000	500-2000
Color APHA	g/cm ³	GB/T 1722-1992	<60	/
Monomeric Isocyanate	wt%	GB/T 18446-2009	<0.2%	<0.2%
Flash Point	°C	GB/T 5208-2008	~ 226	~ 226
Density	g/m3	GB/T 4472-2011	~ 1.16	~ 1.16

NOTE: The above values are shown as typical values and should not be used as specifications.



E8 Series, PBS

Features: Biodegradable, Compostable, Toxic-Free, Good Low Temperature Resistance, Excellent Physical Property, Good Processing Property, Easy to Modification.

Applications: Packing Film, Bags, Box, Drinking Straw, Tableware, Argriculture Film, Spinning, Non-Woven Fabric, Articles of Consumptions etc.

Properties	Standard	Unit	E801	E810	E820	E850
Density	ASTM D792	g/cm ³	1.24	1.24	1.24	1.24
Hardness	ASTM D2240	Shore A/D	97/-	97/-	97/-	97/-
Tensile Strength	ASTM D412	Mpa	50	50	45	30
100% Modulus	ASTM D412	Mpa	20	20	20	18
300% Modulus	ASTM D412	Mpa	25	25	24	22
Elongation at Break	ASTM D412	%	600	600	550	450
Tear Strength	ASTM D624	kN/m	200	200	195	190
MFI	ASTM D1238	g/10min	<3	3-10	15-25	45-55
Tm	DSC	°C	114	114	114	114
HDT(0.45Mpa)	ASTM D395	°C	88	88	86	86

NOTE: The above values are shown as typical values and should not be used as specifications.



STORAGE

TPU, PBS, PUR, PUD should be stored in tightly closed containers in dry, cool and shady area. The optimal storage temperature range of PUR is 0-25°C , and the range of PUD is 5-35°C . Shelf life of PUR and PUD is six months in original unopened packages when storage condition is appropriate. Beyond the range of storage conditions, the material may cause irreversible damage to processing and use.

TPU, PBS, PUR are sensitive to moisture. Never bring packages full of TPU, PBS or PUR into contact of water, nor put them at humid locations. For TPU and PBS, never put opened packages in open air or prolong drying time. For PUR, irreversible effects will appear, such as gel or crust when the material absorb water.

ENVIRONMENT

According to environmental laws and regulations, TPU/PBS/PUR/PUD are common non-controlled wastes which means they can be buried or combusted under permission.

Classification and recovery of TPU/PBS/PUR/PUD packages after use is recommended to avoid wastes of resources and environmental pollution.

SAFETY

Take MSDS as reference for storage, transportation and processing.

DISCLAIMER

The information provided here is for reference only. The specification will be provided in the quality certificate or in the contract. It is the user's responsibility to test the material and its suitability for a process. We have no control over what another does with the material and we can't take any responsibility for another party's action. Nor will we be responsible for any indirect damages while using our products. The user is welcome to contact our customer and technical service center with questions on our products.

梦想创造奇迹
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