

POLYURETHANE COATED FELT LINER (PU)

PRODUCT DESCRIPTION

Polyester fibre Liner with Polyurethane coating custom sized for pipe rehabilitation manufactured in accordance with ISO 9001:2015. To accommodate the requirement for liners of varying thicknesses multi-layer liners are employed using multiple polyester fibre rolls.

DIMENSION AVAILABILITY

	HOT CURE EVERSION	AMBIENT/WARM CURE EVERSION	HOT CURE DRAG-IN	AMBIENT/WARM CURE DRAG-IN
DIAMETER	100mm to 2500mm	70mm to 225mm	100mm to 600mm	70mm to 225mm
THICKNESS	3mm to 50mm	3mm to 6mm	3mm to 12mm	3mm to 6mm
LENGTH	ANY	ANY	ANY	ANY
COATING WEIGHT	400GSM (NOMINAL)			
LINER DESIGN	Liner undersized <10%			
	Liner features a welded or stitched seam. Stitched liners only available up to 450mm diameter.			
	Liner can negotiate pipe bends up to 45°			

INSTALLATION METHODS

	RESIN TYPE		CURING REGIME				
LINER TYPE	EPOXY	POLYESTER/VINYLESTER	HOT WATER <90°C	STEAM <90°C	AMBIENT	WARM WATER <50°C	WARM AIR ACCELERATED
HOT CURE EVERSION	✗	✓	✓	✓	✗	✗	✗
AMBIENT/WARM CURE EVERSION	✓	✓	✗	✗	✓	✓	✓
HOT CURE DRAG-IN	✗	✓	✓	✓	✗	✗	✗
AMBIENT/WARM CURE DRAG-IN	✓	✓	✗	✗	✓	✓	✓

TEST SPECIFICATIONS

	CHARACTERISTIC	TEST	STANDARD
ROLL	Density and density distribution at various applied pressures.	Compression measured at increasing pressure.	ISO 845
	Load at break in machine and cross directions.	Tensile testing - Maximum Resistive Force.	ISO 1421
	Secant Modulus in machine and cross directions (resistance to stretch)	Tensile testing - Maximum Resistive Force vs Extension %.	ISO 1421
	Coating weight and distribution.	Samples weighed to determine distribution of coating in cross direction of the roll.	-
	Coating adhesion and ability to weld.	Peel strength of welded tape.	ISO 2411
LINER	Density, Gauge of liner under various applied pressures.	Compression test of sample of all layers.	ISO 845
	Felt weld strengths.	Each weld is sampled and destructively tested.	ISO 1421
	Sealing tape weld strengths.	Each weld is sampled and destructively tested.	ISO 1421

Note: - Liners are manufactured to internal standard or customer specifications. All liners are tested to the tests declared above and adhere to the declared ISO standards. Test data is available on request.

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CURING TEMPERATURE MAX 90°C

DIAMETER (mm)	LINER THICKNESS (mm)	EVERSION PRESSURE (bar)	MAX EVERSION PRESSURE (bar)	CURING PRESSURE (bar)	MAX PRESSURE (bar) @ 90°C	RESIN AMOUNT (Litre/m)	PINCH ROLLER GAP (mm)
70	3	0.86	1.32	0.86	1.15	0.6	8.5
100	3	0.60	0.92	0.60	0.81	0.8	8.0
125	3	0.48	0.74	0.48	0.65	1.1	8.0
150	3	0.40	0.62	0.40	0.54	1.3	8.0
150	4.5	0.60	0.92	0.60	0.81	1.9	12.0
200	3	0.30	0.46	0.30	0.40	1.7	8.0
200	4.5	0.45	0.69	0.45	0.61	2.6	11.5
200	6	0.60	0.92	0.60	0.81	3.4	15.5
225	3	0.27	0.41	0.27	0.36	2.0	8.0
225	4.5	0.40	0.62	0.40	0.54	2.9	11.5
225	6	0.54	0.82	0.54	0.72	3.9	15.5
225	8	0.71	1.10	0.71	0.96	5.1	20.5
225	10	0.89	1.37	0.89	1.20	6.3	26.0
250	6	0.48	0.74	0.48	0.65	4.3	15.0
250	8	0.64	0.99	0.64	0.86	5.7	20.5
250	10	0.80	1.23	0.80	1.08	7.0	26.0
275	6	0.44	0.67	0.44	0.59	4.7	15.0
275	8	0.58	0.90	0.58	0.78	6.3	20.5
275	10	0.73	1.12	0.73	0.98	7.8	25.5
300	6	0.40	0.62	0.40	0.54	5.2	15.0
300	8	0.54	0.82	0.54	0.72	6.8	20.0
300	10	0.67	1.03	0.67	0.90	8.5	25.5
350	6	0.34	0.53	0.34	0.46	6.0	15.0
350	8	0.46	0.70	0.46	0.61	8.0	20.0
350	10	0.57	0.88	0.57	0.77	10.0	25.0
350	12	0.69	1.06	0.69	0.92	11.9	30.5
400	10	0.50	0.77	0.50	0.67	11.4	25.0
400	12	0.60	0.92	0.60	0.81	13.6	30.0
450	10	0.45	0.68	0.45	0.60	12.9	24.5
450	12	0.54	0.82	0.54	0.72	15.4	30.0
500	10	0.40	0.62	0.40	0.54	14.3	24.5
500	12	0.48	0.74	0.48	0.65	17.1	29.5
500	14	0.56	0.86	0.56	0.75	19.9	34.5
500	16	0.64	0.99	0.64	0.86	22.7	40.0
550	10	0.37	0.56	0.37	0.49	15.8	24.5
550	12	0.44	0.67	0.44	0.59	18.9	29.5
550	14	0.51	0.78	0.51	0.68	22.0	34.5
550	16	0.58	0.90	0.58	0.78	25.0	39.5
550	18	0.66	1.01	0.66	0.88	28.0	45.0
600	10	0.34	0.51	0.34	0.45	17.3	24.5
600	12	0.40	0.62	0.40	0.54	20.7	29.5
600	14	0.47	0.72	0.47	0.63	24.0	34.5
600	16	0.54	0.82	0.54	0.72	27.4	39.5
600	18	0.60	0.92	0.60	0.81	30.7	44.5

1. Suitable only for BurrowTech Ltd liners designed for and to be installed by eversion.
2. Roller gap setting is for guidance only. Impregnation equipment differs: Rubber wrappings on rollers, positional hysteresis and flexing of rollers cause roller gap settings to vary between different equipment. Roller gap setting for any given equipment should be reasonably repeatable.
3. We strongly recommend the resin addition be monitored and controlled by adjustment of the roller gap setting. Ultimately, it is the correct resin addition which is imperative, not the roller gap.
4. All information is provided by BurrowTech Ltd in good faith, but without warranty. All calculations should be verified.