

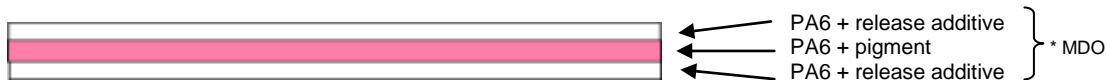
Technical Data Sheet

Monomide™ PA19 SMC Film

Product Description:

Monomide™ PA19 is a machine direction orientated (MDO); multi-layer (PA/PA/PA) SMC film produced using state-of-the-art cast co-extrusion technology. The outer layers of the film contain an additive giving excellent release properties and an appropriate coefficient of friction. The core polyamide 6 layer contains a red pigment for identification and to provide a colour contrast. Monomide was designed specifically for use in jumbo roll applications where maintaining excellent control over the weight per unit area is critical. This film provides exceptional resistance to elongation so reducing the tendency for jumbo rolls of SMC to deform. Monomide is likely to be unsuitable for use with phenolic resin systems.

Construction:



Mechanical Properties:

Test	Units	Method	Monomide™
Thickness	μ		19
Yield	m2/kg		43.7
Construction			PA/PA/PA*
Tensile Strength at Break- MD	Mpa	DIN 527	319
Tensile Strength at Break - TD	Mpa	DIN 527	78
Tensile Modulus - MD	Mpa	DIN 527	937
Tensile Modulus - TD	Mpa	DIN 527	1549
Elongation at Break - MD	%	DIN 527	90
Elongation at Break - TD	%	DIN 527	519
Puncture Resistance - Strength	N	DIN EN 144	6.6
Puncture Resistance - Deformation	mm	DIN EN 145	2.2
Puncture Resistance- Total Energy	mJ	DIN EN 146	6.6
Puncture Resistance - Strength	N	ASTM F. 1306	19.4
Puncture Resistance - Deformation	mm	ASTM F. 1307	8.68
Puncture Resistance - Total Energy	J	ASTM F. 1308	0.074
Tear Strength - MD	N	DIN 53363	14.8
Tear Strength - TD	N	DIN 53363	11.4
Tear Resistance - MD	N/mm	DIN 53363	784
Tear Resistance - TD	N/mm	DIN 53363	597
Coefficient of Friction. Film/metal (static)		DIN 8295	0.21
Coefficient of Friction. Film/metal (dynamic)		DIN 8295	0.21
Surface Tension - side A	mN/m	DIN 8296	31
Surface Tension - side B	mN/m	DIN 8296	31

Availability:

Thickness: 19μ
 Core Sizes (mm): 76 mm
 Width (mm): Max. 1,700 mm

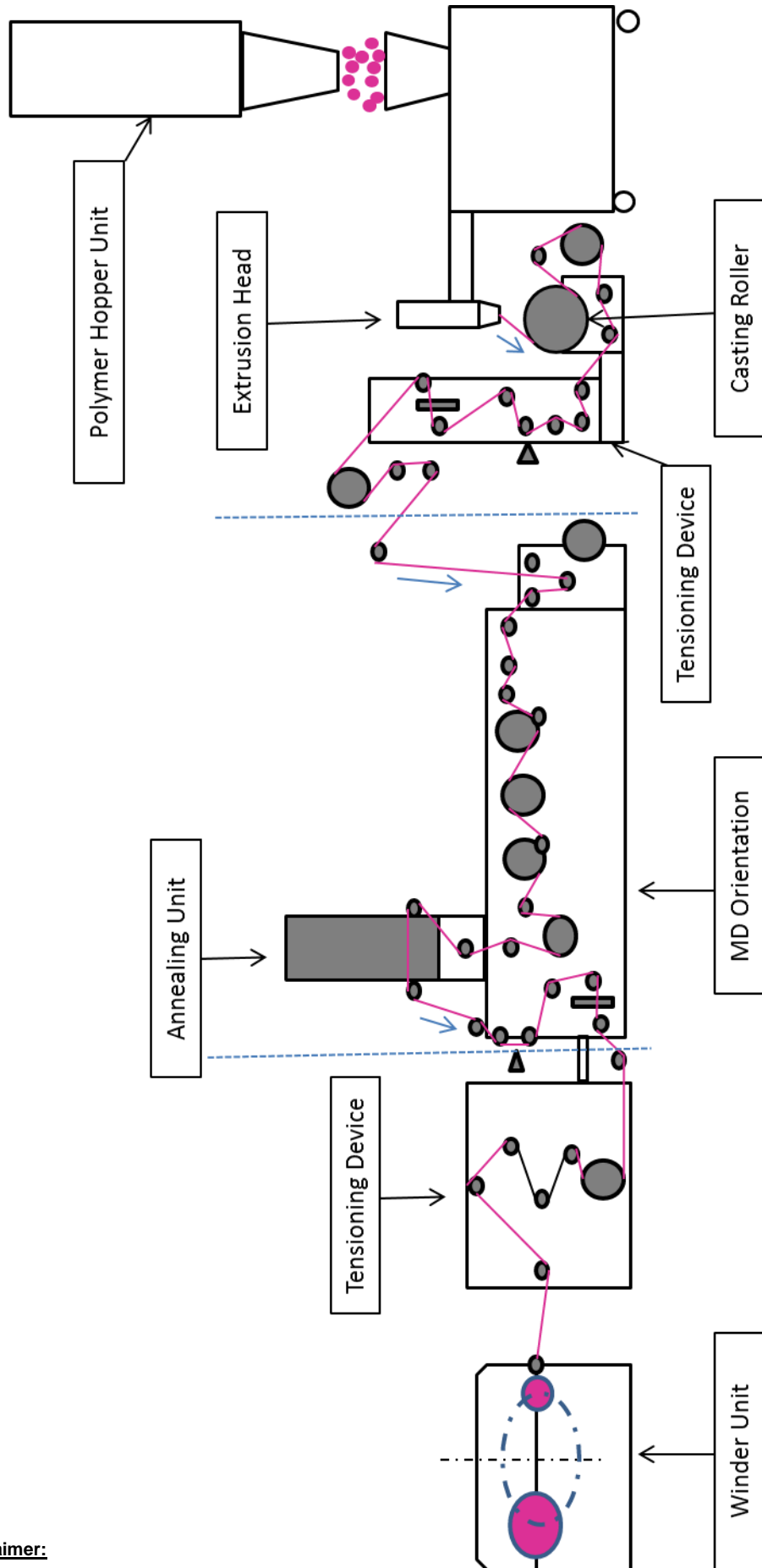
Storage:

It is recommended that the film products are stored in a cool and dry environment. . Recommended storage temperature is between 10 - 30°C and relative humidity between 35 - 75%. The film products should remain in the packaging until just prior to use. The pallets should not be be stacked.

Warranty disclaimer:

The physical (or chemical) properties of this product represent typical average values obtained in accordance with accepted test methods at the time of manufacture and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check with the JoBeqs Limited office to assure current information.

Monomide™ Extrusion Process



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Mechanical Property Comparison

Test	Units	Method	PA23SLP	Orange	Blue 1	Blue 2	Monomide™
Thickness	μ		25	31	25	24	19
Yield	m ² /kg						43.7
Construction			PE/PA/PE	PA/PE/PA	PA/PE/PA	PA	PA/PA/PA*
Tensile Strength at Break- MD	Mpa	DIN 527	41.2	43.1	50.7	95.3	319
Tensile Strength at Break - TD	Mpa	DIN 527	29.1	33.7	41.4	64.7	78
Tensile Modulus - MD	Mpa	DIN 527	336	203	323	504	937
Tensile Modulus - TD	Mpa	DIN 527	475	283	556	634	1549
Elongation at Break - MD	%	DIN 527	457	468	289	393	90
Elongation at Break - TD	%	DIN 527	447	602	483	441	519
Puncture Resistance - Strength	N	DIN EN 144	2.02	2.26	3.99	2.78	6.6
Puncture Resistance - Deformation	mm	DIN EN 145	2.6	2.9	2.5	2.3	2.2
Puncture Resistance- Total Energy	mJ	DIN EN 146	3.66	4.32	3.99	4.09	6.6
Puncture Resistance - Strength	N	ASTM F. 1306	5.88	6.65	6.9	7.48	19.4
Puncture Resistance - Deformation	mm	ASTM F. 1307	10.4	10.6	9.4	8.7	8.68
Puncture Resistance - Total Energy	J	ASTM F. 1308	0.0384	0.0412	0.0354	0.0339	0.074
Tear Strength - MD	N	DIN 53363	6.2	7.91	5.64	8.77	14.8
Tear Strength - TD	N	DIN 53363	10.84	10.93	10.8	13.35	11.4
Tear Resistance - MD	N/mm	DIN 53363	227	245	231	354	784
Tear Resistance - TD	N/mm	DIN 53363	433	354	453	585	597
Coefficient of Friction. Film/metal (static)		DIN 8295	0.33	0.33	0.33	0.31	0.21
Coefficient of Friction. Film/metal (dynamic)		DIN 8295	0.37	0.35	0.32	0.31	0.21
Surface Tension - side A	mN/m	DIN 8296	30	32	38	35	31
Surface Tension - side B	mN/m	DIN 8296	30	32	38	35	31

* MDO - machine direction oriented

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