

MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

.70 mil

Product Description

Sigma Vortex is a high durability multi-layer one-sided cling blown machine Stiff formula combined with strong puncture resistance make it ideal for securing heavy, tough to secure A, B and C type loads. Ideal for high-speed applications.

Applications

Bagged products
 Ringer applications
 Brick and block

High containment
 Inboard loads
 Bottled liquids



Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2000 psi	N/A	N/A
Tensile Strength at Yield TD	1500 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5200 psi	± 15%	ASTM D882
Tensile Strength at Break TD	5100 psi	± 15%	ASTM D882
Elongation at Break MD	450%	± 15%	ASTM D882
Elongation at Break TD	600%	± 15%	ASTM D882
Protrusion Puncture	7.0 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	24.4 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	180 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	1100 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	0.7 mil		17.8 micron	

**Manufactured with pride in the USA and Canada by
 Sigma Stretch Film**

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2100 psi	N/A	N/A
Tensile Strength at Yield TD	1400 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5400 psi	± 15%	ASTM D882
Tensile Strength at Break TD	4500 psi	± 15%	ASTM D882
Elongation at Break MD	460%	± 15%	ASTM D882
Elongation at Break TD	580%	± 15%	ASTM D882
Protrusion Puncture	7.8 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	26.5 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	180 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	1100 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	0.8 mil		20.3 micron	

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

.90 mil

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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2200 psi	N/A	N/A
Tensile Strength at Yield TD	1300 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5600 psi	± 15%	ASTM D882
Tensile Strength at Break TD	3700 psi	± 15%	ASTM D882
Elongation at Break MD	470%	± 15%	ASTM D882
Elongation at Break TD	550%	± 15%	ASTM D882
Protrusion Puncture	8.5 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	28.6 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	180 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	1100 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	0.9 mil		22.9 micron	

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

1.0 mil

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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2300 psi	N/A	N/A
Tensile Strength at Yield TD	1200 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5800 psi	± 15%	ASTM D882
Tensile Strength at Break TD	2900 psi	± 15%	ASTM D882
Elongation at Break MD	480%	± 15%	ASTM D882
Elongation at Break TD	520%	± 15%	ASTM D882
Protrusion Puncture	9.2 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	30.7 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	180 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	1100 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	1.0 mil		25.4 micron	

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

1.10 mil

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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2150 psi	N/A	N/A
Tensile Strength at Yield TD	1200 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5800 psi	± 15%	ASTM D882
Tensile Strength at Break TD	2900 psi	± 15%	ASTM D882
Elongation at Break MD	480%	± 15%	ASTM D882
Elongation at Break TD	520%	± 15%	ASTM D882
Protrusion Puncture	9.2 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	30.7 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	180 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	1100 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	1.10 mil		28.0 micron	

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

1.20 mil

Product Description

Sigma Vortex is a high durability multi-layer one-sided cling blown machine Stiff formula combined with strong puncture resistance make it ideal for securing heavy, tough to secure A, B and C type loads. Ideal for high-speed applications.

Applications

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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2000 psi	N/A	N/A
Tensile Strength at Yield TD	1600 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5200 psi	± 15%	ASTM D882
Tensile Strength at Break TD	5600 psi	± 15%	ASTM D882
Elongation at Break MD	500%	± 15%	ASTM D882
Elongation at Break TD	600%	± 15%	ASTM D882
Protrusion Puncture	12.5 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	33.4 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	320 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	660 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	1.2 mil		38.1 micron	

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MVT VORTEX ONE-SIDED CLING BLOWN MACHINE FILM

1.50 mil

Product Description

Sigma Vortex is a high durability multi-layer one-sided cling blown machine Stiff formula combined with strong puncture resistance make it ideal for securing heavy, tough to secure A, B and C type loads. Ideal for high-speed applications.

Applications

Bagged products
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Film Properties	Typical Value (English)	Tolerance	Test Method
Tensile Strength at Yield MD	2000 psi	N/A	N/A
Tensile Strength at Yield TD	1600 psi	± 15%	ASTM D882
Tensile Strength at Break MD	5200 psi	± 15%	ASTM D882
Tensile Strength at Break TD	5600 psi	± 15%	ASTM D882
Elongation at Break MD	520%	± 15%	ASTM D882
Elongation at Break TD	630%	± 15%	ASTM D882
Protrusion Puncture	13.1 lbs.	± 15%	ASTM D5748
Protrusion Puncture Energy	41.8 in-lb	± 15%	ASTM D5748
Elmendorf Tear Strength MD	320 g/mil	± 15%	ASTM 1922
Elmendorf Tear Strength TD	660 g/mil	± 15%	ASTM 1922
Cling - Outside to Inside @ 225%	min 150 g/in	± 15%	ASTM D5458

Dimensions	Value	Tolerance	Value (SI)	Tolerance
Core ID	3.05 inches	± 0.05%	76.2 mm	± 1.3 mm
Film Thickness	1.5 mil		38.1 micron	

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