

V00251

TUFFlex Pre-stretched Handwrap

7.4 Micron / 29 Gauge / 0.29 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	7.4 Micron / 29 Gauge / 0.29 Mil
Film Width (inches)	12.5"
Length (feet)	2000'
Net Weight / Roll (lb, nominal)	2.9 lb
Roll Diameter (O.D., inches)	6.3"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (PSI)	ASTM D 882	16000 psi
Ultimate Tensile TD (PSI)	ASTM D 882	3300 psi
Elongation MD (%)	ASTM D 882	150%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.1 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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03/19
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V00252

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CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	7.4 Micron / 29 Gauge / 0.29 Mil
Film Width (inches)	15.5"
Length (feet)	2000'
Net Weight / Roll (lb, nominal)	3.6 lb
Roll Diameter (O.D., inches)	6.3"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (PSI)	ASTM D 882	16000 psi
Ultimate Tensile TD (PSI)	ASTM D 882	3300 psi
Elongation MD (%)	ASTM D 882	150%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.1 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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V00253

TUFFlex Pre-stretched Handwrap

8.4 Micron / 33 Gauge / 0.33 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	8.4 Micron / 33 Gauge / 0.33 Mil
Film Width (inches)	15.15"
Length (feet)	1476'
Net Weight / Roll (lb, nominal)	3.03 lb
Roll Diameter (O.D., inches)	5.5"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	15000 psi
Ultimate Tensile TD (psi)	ASTM D 882	4000 psi
Elongation MD (%)	ASTM D 882	180%
Elongation TD (%)	ASTM D 882	690%
Tear Resistance MD (grams)	ASTM D 1922	450 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.5 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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V00254

TUFFlex Pre-stretched Handwrap

8.4 Micron / 33 Gauge / 0.33 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	8.4 Micron / 33 Gauge / 0.33 Mil
Film Width (inches)	15.15"
Length (feet)	2000'
Net Weight / Roll (lb, nominal)	4.1 lb
Roll Diameter (O.D., inches)	6.0"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (PSI)	ASTM D 882	15000 psi
Ultimate Tensile TD (PSI)	ASTM D 882	4000 psi
Elongation MD (%)	ASTM D 882	180%
Elongation TD (%)	ASTM D 882	690%
Tear Resistance MD (grams)	ASTM D 1922	450 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.5 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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V00255

TUFFlex Pre-stretched Handwrap

8.4 Micron / 33 Gauge / 0.33 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	8.4 Micron / 33 Gauge / 0.33 Mil
Film Width (inches)	17.5"
Length (feet)	1476'
Net Weight / Roll (lb, nominal)	3.4 lb
Roll Diameter (O.D., inches)	5.5"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	15000 psi
Ultimate Tensile TD	ASTM D 882	4000 psi
Elongation MD (%)	ASTM D 882	180%
Elongation TD (%)	ASTM D 882	690%
Tear Resistance MD (grams)	ASTM D 1922	450 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.5 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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TFStetchTDSUS

V00256

TUFFlex Pre-stretched Handwrap

9.9 Micron / 39 Gauge / 0.39 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	9.9 Micron / 39 Gauge / 0.39 Mil
Film Width (inches)	15.15"
Length (feet)	1476'
Net Weight / Roll (lb, nominal)	3.63 lb
Roll Diameter (O.D., inches)	5.5"
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	13500 psi
Ultimate Tensile TD (psi)	ASTM D 882	4200 psi
Elongation MD (%)	ASTM D 882	190%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	14.4 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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03/19
TFStetchTDSUS

V00257**TUFFlex Pre-stretched Handwrap**

9.9 Micron / 39 Gauge / 0.39 Mil

*Not intended as limiting specifications.***CHARACTERISTICS****VALUES**

Manufacturing Process	Blown
Thickness (nominal)	9.9 Micron / 39 Gauge / 0.39 Mil
Film Width (inches)	15.15"
Length (feet)	1476'
Net Weight / Roll (lb, nominal)	3.6 lb
Roll Diameter (O.D., inches)	5.5"
Core I.D.	3"

TESTS**METHODS****VALUES**

Ultimate Tensile MD (PSI)	ASTM D 882	13500 psi
Ultimate Tensile TD (PSI)	ASTM D 882	4200 psi
Elongation MD (%)	ASTM D 882	190%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	14.4 in-lb
Ultimate Prestretch (%)	Mfg. / Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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03/19
TFStetchTDSUS

V04214

TUFFlex Pre-stretched Handwrap

6.1 Micron / 24 Gauge / 0.24 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Cast
Thickness (nominal)	6.1 Micron / 24 Gauge / 0.24 Mil
Color	Clear
Film Width (inches)	14.5"
Length (feet)	2000'
Net Weight / Roll (lb, nominal)	2.78 lb
Core I.D.	3"

TESTS

METHODS

VALUES

Haze	ASTM D1003	< 9.8 %
Gloss	ASTM D2457	85%
Tensile Strength at Break (MD)	ASTM D882	8000 psi
Tensile Strength at Break (TD)	ASTM D882	1900 psi
Elongation at Break (MD)	ASTM D882	40%
Elongation at Break (TD)	ASTM D882	500%
Elmendorf Tear Strength (MD)	ASTM D1922	80 g
Elmendorf Tear Strength (TD)	ASTM D1922	200 g
Cling	ASTM D5458	75 g

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03/19
TFStetchTDSUS

V04746

TUFFlex Pre-stretched Handwrap

7.4 Micron / 29 Gauge / 0.29 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	7.4 Micron / 29 Gauge / 0.29 Mil
Film Width (inches)	15.5
Length (feet)	1476'
Net Weight / Roll (lbs. – nominal)	2.7
Roll Diameter (O.D., inches)	3.9
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	16000 psi
Ultimate Tensile TD (psi)	ASTM D 882	3300 psi
Elongation MD (%)	ASTM D 882	150%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	9.26 in-lbs
Ultimate Prestretch (%)	Mfg./Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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03/19
TFStetchTDSUS

V04753

TUFFlex Pre-stretched Handwrap

7.4 Micron / 29 Gauge / 0.29 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	7.4 Micron / 29 Gauge / 0.29 Mil
Film Width (inches)	17.5
Length (feet)	1476'
Net Weight / Roll (lbs. – nominal)	3.0
Roll Diameter (O.D., inches)	3.9
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	16000 psi
Ultimate Tensile TD (psi)	ASTM D 882	3300 psi
Elongation MD (%)	ASTM D 882	150%
Elongation TD (%)	ASTM D 882	730%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	9.26 in-lbs
Ultimate Prestretch (%)	Mfg./Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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TFStetchTDSUS

V04754**TUFFlex Pre-stretched Handwrap**

8.4 Micron / 33 Gauge / 0.33 Mil

*Not intended as limiting specifications.***CHARACTERISTICS****VALUES**

Manufacturing Process	Blown
Thickness (nominal)	8.4 Micron / 33 Gauge / 0.33 Mil
Film Width (inches)	17.5
Length (feet)	1476'
Net Weight / Roll (lbs. – nominal)	3.4
Roll Diameter (O.D., inches)	4.6
Core I.D.	3"

TESTS**METHODS****VALUES**

Ultimate Tensile MD (psi)	ASTM D 882	15000 psi
Ultimate Tensile TD (psi)	ASTM D 882	4000 psi
Elongation MD (%)	ASTM D 882	180%
Elongation TD (%)	ASTM D 882	690%
Tear Resistance MD (grams)	ASTM D 1922	450 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	12.5 in-lbs
Ultimate Prestretch (%)	Mfg./Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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V04755

TUFFlex Pre-stretched Handwrap

6.1 Micron / 24 Gauge / 0.24 Mil

Not intended as limiting specifications.

CHARACTERISTICS

VALUES

Manufacturing Process	Blown
Thickness (nominal)	6.1 Micron / 24 Gauge / 0.24 Mil
Film Width (inches)	15.5
Length (feet)	2000'
Net Weight / Roll (lbs.-nominal)	3
Roll Diameter (O.D., inches)	4
Core I.D.	3"

TESTS

METHODS

VALUES

Ultimate Tensile MD (psi)	ASTM D 882	18000 psi
Ultimate Tensile TD (psi)	ASTM D 882	3280 psi
Elongation MD (%)	ASTM D 882	80%
Elongation TD (%)	ASTM D 882	704%
Tear Resistance MD (grams)	ASTM D 1922	140 g/mil
Tear Resistance TD (grams)	ASTM D 1922	980 g/mil
Puncture Resistance (in-lbs.)	ASTM D 4649	9.26 in-lbs
Ultimate Prestretch (%)	Mfg./Highlight	N/A
Cling (in to out, grams)	Mfg. method	150 g/in

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