

Meets or exceeds the requirements of ASTM D 6878

### Features and Components

**Thickness Over Scrim:** Optimized and tested on a continual basis with a state-of-the-art thickness gauge to verify that the thickness valued by our customers is incorporated into the sheet.

**One of the Widest Melt Windows:** Promotes better welds over a wider variety of speeds and temperatures, and leads to a softer, more flexible and workable sheet.

**Reinforced fabric scrim layer and top-ply thickness:** Lends to durable physical properties including:

- Long term weathering, UV resistance and heat-aging properties
- High breaking and tearing strength.

**Optimized TPO formulation:** delivers high-performance ozone resistance, cool roof reflectivity and overall weather resistance.



### Colours

Grey	White
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**System Compatibility** This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
<i>Do not use with Multi-Ply systems</i>								

Single Ply	TPO		PVC		EPDM		
	MF	AD	MF	AD	MF	AD	BA
<i>Compatible with the selected Single Ply systems above</i>							

**Key:** HA=Hot Applied CA=Cold Applied HW=Heat Weldable SA=Self Adhered MF=Mechanically Fastened AD=Adhered BA=Ballasted

### Energy and the Environment

Standard		Reflectivity	Emissivity
CRRC®	White	Initial	0.77
		3 Yr.Aged	0.70
	Grey	Initial	0.35
		3 Yr.Aged	0.34
CA Title 24	White	Pass	0.77
ENERGY STAR®	White	Initial	0.77
		3 Yr.Aged	0.70
LEED® (SRI)	White	Initial	95
		3 Yr.Aged	85
	Grey	Initial	39
		3 Yr.Aged	37
Recycled Content	Post-consumer		0%
	Post-industrial		5%

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

### Warranty Information

Product	Warranty Period
duroTUF TPO	20 Yrs

### Installation/Application

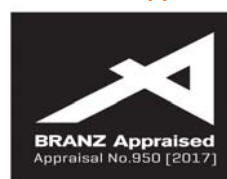


Refer to Waterproofing Systems duroTUF TPO manual and detail drawings for instructions.

### Packaging and Dimensions

Roll Widths	3.05m
Roll Lengths	30.48m
Roll Coverage	92.9m <sup>2</sup>

### Codes and Approvals



Refer to Waterproofing Systems Safety Data Sheet prior to using this product. The Safety Data Sheet is available on our website [www.waterproofing.co.nz](http://www.waterproofing.co.nz) or phone: 09 579 1460 to request a copy.

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### Tested Physical Properties

Physical Properties		ASTM Test Method	Standard for ASTM D 6878 (Min.)	duroTUF TPO 1.52mm	
				MD*	XMD**
Strength	Breaking Strength, min, lbf (N)	D 751	220 (976)	411 (1,828)	388 (1,726)
	Elongation at Break, min %	D 751	15	27	27
	Tearing Strength, min, lbf (N)	D 751	45 (200)	92 (409)	178 (792)
	Factory Seam Strength, min, lbf (N)	D 751	66 (290)	112 (498)	
Longevity	Thickness, min, in.	D 751	+/- 10% from Nominal	0.060 (Nominal)	
	Thickness Over Scrim, min, in. (mm)	D 7635	0.015	0.027(0.686)	
	Water Absorption, max, %	D 471	3.0	0.11	
	Brittleness Point, max, -40°F	D 2137	No Cracks	Pass	
	Ozone Resistance	D 1149	No Cracks	Pass	
Heat Aged Performance	Properties after Heat Aging @ 240°F	D 573	Pass/Fail	Pass	
	Breaking Strength, % (after aging)	D 751	90	>90	>90
	Elongation, % (after aging)	D 751	90	>90	>90
	Tearing Strength, % (after aging)	D 751	60	>60	>60
	Weight Change, max, % (after aging)	D 751	±1.0	0.19	
	Linear Dimensional Change, max, % (after 6hrs @ 158°F)	D 1204	±1.0	<0.1	
Weather Performance	Accelerated Weathering, min	G 151 & G 155	10,080 kJ/m <sup>2</sup> .nm @ 340nm (4,000hrs @ 0.70W)	>20,160 kJ/m <sup>2</sup> (>8,000 hrs)	
	Cracking (@7x magnification)	G 155	No Cracks	Pass	

\*MD=Machine Direction

\*\*XMD= Cross-Machine Direction

Note: All data represents tested values

### Supplemental Testing

Physical Properties	ASTM Test Method	Standard for ASTM D 6878. (Min.)	duroTUF TPO 1.52mm Result
Dynamic Puncture	D 5635	N/A	Pass @ 25 Joules
Static Puncture	D 5602	N/A	Pass @ 44 lb (20 kg)
Impact Resistance of Bituminous Roofing Systems	D 3746	N/A	Pass - minor indentations
Reflectance	C 1549	N/A	78%
	E 903	N/A	80%
Emittance	C 1371	N/A	0.87
	E 408	N/A	0.96
SRI	E 1980	N/A	95
Resistance of Synthetic Polymer Material to Fungi	G 21	N/A	0 rating
Puncture Resistance (FTMS 101C, Method 2031)	N/A	N/A	371 lb (168 kg)
Moisture Vapor Transmission	E 96	N/A	0 g/m <sup>2</sup> per 24 hours
Hydrostatic Resistance, Mullen	D 751	N/A	474 PSI (3268 kPa)
Standard Test Method for Air Permeance of Building Materials	E 2178	N/A	Pass @ <0.0005 L/(s.m <sup>2</sup> ) (Pass @ <0.0001 CFM/ft <sup>2</sup> )

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