



DURO-TUFF® MEMBRANE

Product Environmental Profile

Duro-Last® Duro-Tuff membrane is an excellent choice for low-slope roof projects requiring a long lasting, energy efficient roofing product. A complete line of custom prefabricated accessories is available for the Duro-Tuff 50 mil, 60 mil, and 80 mil membranes. The Duro-Tuff membrane incorporates a weft-inserted knitted scrim to provide exceptional strength and waterproofing.

Environmental Facts:



POST-INDUSTRIAL RECYCLING

Up to 100% recyclable. Post-industrial scrap from the manufacturing of Duro-Tuff is recycled into walkway pads, concrete expansion joints and resilient flooring.



GREEN CODES

Complies with California Title 24, IgCC, and efficiency programs requiring the use of a highly reflective roof membrane.



END-OF-LIFE RECYCLING

Mechanically fastened membranes can be taken back and recycled into resilient flooring and concrete expansion joints.



SOLAR READY

Is solar ready with low-maintenance custom fabricated flashings which are ideal for any rack-mounted commercial rooftop solar application.



ENERGY EFFICIENT

Duro-Tuff white reflective roofs, when designed and installed properly, can help increase energy efficiency, especially during periods of peak energy demand.



SUSTAINABILITY CERTIFICATION

The Duro-Tuff membrane is NSF 347 gold certified as a more durable, energy efficient, and sustainable, single-ply membrane product.

Duro-Last membranes are tested for radiative properties by the Cool Roof Rating Council.

Cool Roof Rating Council (CRRC)						
	Solar Reflectance		Thermal Emittance		Solar Reflective Index (SRI)	
	Initial	3-Year	Initial	3-Year	Initial	3-Year
White	0.85	0.73	0.89	0.88	108	90



Product Environmental Profile: Duro-Tuff

The Duro-Tuff roofing system can help buildings obtain credits under the U.S. Green Building Council's LEED® (Leadership in Energy and Environmental Design) rating system, as well as GBI's (Green Building Institute) Green Globes certification. Both programs promote sustainable building management and construction practices.

LEED® Contributions (version 4)			
Program	Category	Credit	Contribution
LEED Design & Construction	Sustainable Sites	SSc5: Heat island reduction	Initial Solar Reflective Index white membrane: 108 3-year aged SRI: 90 Duro-Tuff roofs can also be installed under a vegetative roof.
	Energy & Atmosphere	EAc2: Optimize energy performance	Cool roofs can help reduce heating and cooling loads which reduces building energy consumption.
	Materials & Resources	MRc1: Building life-cycle impact reduction	The Duro-Tuff life-cycle assessment (LCA) is featured in the Athena Sustainable Materials Institute's Building Impact Estimator so project teams can easily model a whole building LCA
		MRc2: Building product disclosure & optimization - environmental product declaration	Duro-Tuff has a 3rd party verified environmental product declaration (EPD), which is valued as one whole product.
		MRc3: Building product disclosure & optimization - sourcing of raw materials	Duro-Last offers a take-back program so old roofs can be recycled into new product.
LEED Operations & Maintenance	Sustainable Sites	SSc3: Heat island reduction	Initial Solar Reflective Index white membrane: 108 3-year aged SRI: 90 Duro-Tuff roofs can also be installed under a vegetative roof.
	Energy & Atmosphere	EAc4: Optimize energy performance	Cool roofs can help reduce heating and cooling loads which reduces building energy consumption.
	Materials & Resources	MRc3: Purchasing - facility maintenance & renovation	Duro-Last offers a take-back program so old roofs can be recycled into new product. Duro-Tuff also contains post-industrial recycled content.
		MRc5: Solid waste management - facility maintenance & renovation	Duro-Last offers a take-back program so old roofs can be recycled into new product to help increase the project's waste diversion rate.
Pilot Credit		Certified multi-attribute products & materials	Duro-Tuff is NSF/ANSI 347 Gold certified, and has achieved two points in credit 5.2.2

Green Globes® Contributions (version 2.2)			
Program	Category	Credit	Contribution
Green Globes New Construction	3.2.2 Ecological Impacts	3.2.2.4 Heat island effect	Initial Solar Reflective Index white membrane: 108 3-year aged SRI: 90 Duro-Tuff roofs can also be installed under a vegetative roof.
	3.5.1 Building Core & Shell	3.5.1.1 Path A: Performance path for building core & shell	The Duro-Tuff LCA is featured in the Athena Sustainable Materials Institute's Building Impact Estimator so project teams can easily model a whole building LCA
		3.5.1.2 Path B: Prescriptive path for building core & shell	Duro-Tuff is NSF/ANSI 347 gold certified, and has a brand specific 3rd-party verified EPD to comply with this credit.
	3.5.6 Resource Conservation	3.5.6.1 Minimized use of raw materials	Custom fabricated accessories help reduce waste created onsite.
	3.5.7 Building Envelope - Roofing/ Openings	3.5.7.1 Roofing membrane assemblies and systems	Most Duro-Tuff roofs are inspected by a trained QA technical representative.
		3.5.7.2 Flashings	Most Duro-Tuff flashings, provided by EXCEPTIONAL® Metals, are inspected by a trained QA technical representative.
	3.5.10 Envelope - Barriers	3.5.10.1 Air barriers	Duro-Guard® Sopravap'r is a self-adhesive vapor membrane that works as an air barrier to stop thermal discontinuities.
		3.5.10.2 Vapor retarders	Duro-Guard Sopravap'r is an air barrier as well as a vapor retarder.