



MULE-HIDE PRODUCTS Co., INC.

“The name trusted in roofing since 1906”

OVERVIEW OF UL LISTINGS

MULE-HIDE PRODUCTS, CO., INC.
UNDERWRITERS LABORATORIES (UL)
TGFU.R13850
ROOFING SYSTEMS - EPDM
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Note: The following overviews are intended as a guide for referencing our Mule-Hide UL listings. Please refer to our UL Summary Listings or the UL website for more complete information.

CLASS A – BALLASTED

Class A - EPDM – Ballasted				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	HDFB, Polystyrene, Polyiso (any thickness, any combination)	EPDM	2"	3
	Poly ISO 1, Poly ISO 2, Poly ISO 1-WF, Poly ISO 1-NB (any thickness)	Any UL Listed	2"	12
Combustible (3)	None	EPDM	2"	4
	Min 3/4" Perlite over min 1/2" HDFB, Min 3/4" Perlite over min 1/2" HDFB over max 5" Polystyrene	EPDM	1"	5
	Gypsum board; HDFB 1/2" over Gypsum Board Polystyrene over Gypsum Board Polyiso	EPDM	2"	6
	Optional insulation beneath membrane With insulation installed over membrane; Dow Styrofoam LF, RM or RM-60–max 4", or UC Industries Foamular 154, 254 or 404 – 8" max	EPDM	2"	7
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

CLASS A – FULLY ADHERED

Class A - EPDM – Fully Adhered				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	HDFB (1/2" to 3"), HDFB 1/2" over Polystyrene, Polyiso (any thickness)	EPDM	1"	13
		W/B EPDM	1.5"	18
		EPDM-Rein	1"	23
	Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	EPDM	1/2"	14
		W/B EPDM	1/2"	17
		EPDM-Rein	1/4"	22
	HDFB 1/2" over Polystyrene (any thickness)	W/B EPDM	1"	19
EPDM-Rein	1"	26		
OSB, OSB over Polyiso (any thickness)	W/B EPDM	2.5"	27	
Poly ISO 1, Poly ISO 2, Poly ISO 1-WF, Poly ISO 1-NB (any thickness)	EPDM	1/2"	104	
Optional any UL Classified (any thick) with FR Deck Panel as cover board	Any UL Listed	(4)	108	
Lightweight Insulating Concrete or Gypsum (2)	None	EPDM	1"	13
		W/B EPDM	1.5"	18
		EPDM-Rein	1"	23
Class A - EPDM – Fully Adhered – Acrylic Water Based Bonding Adhesive				
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	HDFB (1/2" to 3"), HDFB 1/2" over Polystyrene, Polyisocyanurate (any thickness)	EPDM	1"	29
		EPDM-REIN	1"	30
		W/B EPDM	1/2"	32
Atlant ACFoam II or JM ENRGY-1-G (any thickness)	W/B EPDM	1"	31	
Lightweight Insulating Concrete or Gypsum (2)	None	EPDM	1"	29
		EPDM-REIN	1"	30
		W/B EPDM	1/2"	32
Class A - EPDM – Fully Adhered				
Combustible (3)	Gypsum barrier board to deck followed by Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	EPDM	1/2"	15
		W/B EPDM	1/2"	21
		EPDM-Rein	1/4"	24
	Gypsum board; Gypsum board over Polyisocyanurate, Polystyrene (any thick) HDFB 1/2" over Gypsum Board HDFB 1/2" over Polyiso (any thickness)	EPDM	1"	16
		W/B EPDM	1.5"	20
EPDM-Rein	1"	25		
EPDM-R (FR)	Unlimited	35		
Class A - EPDM – Fully Adhered – Acrylic Water Based Bonding Adhesive				
Combustible (3)	1/2" Gypsum Board or 1/4" Dens Deck	EPDM W/B EPDM EPDM-Rein	1/2"	48
FR Deck Panel A	All joints are blocked and caulked	Any UL listed	1/2" (4)	61
(5) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(6) On Gypsum decking, all joints must be grouted.				
(7) Combustible Deck ratings may be used on Non-Combustible Decks				
(8) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

CLASS B – FULLY ADHERED

Class B - EPDM – Fully Adhered				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	W/B EPDM	¼"	1
	Poly ISO 1, Poly ISO 2, Poly ISO 1-WF or Poly ISO 1-NB	EPDM	½"	13
Combustible (3)	Gypsum barrier board to deck followed by Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	W/B EPDM	¼"	2
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

CLASS C – FULLY ADHERED

Class C - EPDM – Fully Adhered				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness) With FR Deck Panel C as cover board	Any UL Listed	(4)	18
	None	Any UL Listed	2" (4)	5
FR Deck Panel C	Optional UL Classified Polyiso – 1" min Optional min ¼" Dens Deck or Securock	Any UL Listed	½" (4)	17
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

CLASS A – MECHANICALLY ATTACHED

Class A - EPDM – Mechanically Attached				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible* (Combustible decks must have a thermal barrier installed under the listed insulations)(1)	Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	EPDM-Rein	¼"	57
	HDFB (1/2" to 3"), HDFB ½" over Polystyrene, Polyiso (any thickness)	EPDM-Rein	1"	58
	Poly ISO 1, Poly ISO 2, Poly ISO 1-WF or Poly ISO 1-NB (any thickness)	EPDM	1/2"	117
Lightweight Insulating Concrete or Gypsum (2)	None	EPDM-Rein	1"	58
Combustible (3)	Two layers of Atlas FR-10 with optional any UL Classified except EPS and HDFB (any type or thickness)	Any UL Classified	Max ¾"(4)	**24
	Gypsum board; Gypsum board over Polyisocyanurate, Polystyrene (any thick) HDFB ½" over Gypsum Board HDFB ½" over Polyisocyanurate, Polystyrene (any thickness)	EPDM-Rein	1"	61
	Gypsum barrier board to deck followed by Atlas AC-II, JM Energy-1A, 1G or Barrier Board Plus, Firestone ISO 95+ GL, GW, HF or R-Max Multi-Max-3 (any thickness)	EPDM-Rein	¼"	64
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

CLASS B – MECHANICALLY ATTACHED

Class B - EPDM – Mechanically Attached				
Deck Type	Insulation	Membrane	Slope	Listing
Combustible (3)	One layer of Atlas FR-10	Any UL Classified	Max ½"(4)	**6
	One of the following layers: Owens Corning Perma Ply No. 28 GAF Gafglas #75 Base Sheet Johns Manville Glasbase Tamko Glass Base Celotex Type G@ Vaporbar GB	EPDM-Rein	1	16
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

MAINTENANCE AND REPAIR - CLASS A, B and C

EPDM – Fully Adhered				
Deck Type	Insulation	Membrane	Slope	Listing
Combustible (3)	Existing Class A, B or C mineral or smooth surfaced cap sheet to retain existing classification	W/B EPDM EPDM-Rein	½"	1
EPDM – Mechanically Attached				
Combustible (3)	Existing Class A, B or C mineral or smooth surfaced cap sheet to retain existing classification covered with Atlas FR-50 slip sheet	EPDM-Rein	½"	2
EPDM – Either Fully Adhered or Mechanically Attached				
Combustible (3)	Existing Class A, B or C roofing system to retain existing rating, covered with Poly ISO 1-HD or Poly ISO 1-HD90	Any UL Classified	Max 2" (4)	12
	Existing Class A, B or C roofing system to retain existing rating, covered with Poly ISO 1-HD Composite	Any UL Classified	Max 2" (4)	13
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				
(5) New roofing system is mechanically fastened				

MAINTENANCE AND REPAIR SYSTEM – CLASS A

EPDM – Fully Adhered or Mechanically Attached				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible*	Existing Class A, B or C built-up system, cap sheet or gravel surfaced, gravel maintained, covered with UL Industries Fan-Fold or Durapink, 1" max	EPDM-Rein	1	9
	Existing A, B or C roofing system (gravel may be removed from BUR or LL SPR) Min 3" layer or minimum 2 layers of Poly ISO 1-DWD	Any UL Classified	Max ½" (4)	21
Combustible (3)	Existing Class A, B or C roofing system covered with minimum 3" layer or minimum 2 layers of Poly ISO 1-DWD	Any UL Classified	Max ½" (4)	22
EPDM – Mechanically Attached				
Combustible (3)	Existing Class A, B or C roofing system covered with Gypsum Board	EPDM-Rein	½"	8
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				
(5) New roofing system is mechanically fastened				

MAINTENANCE AND REPAIR SYSTEM – CLASS B

EPDM – Either Fully Adhered or Mechanically Attached				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible*	Existing Class A, B or C roofing system gravel may be maintained, covered with minimum 1.9" Poly ISO 1-DWD	Any UL Classified	Max ½" (4)	6
Combustible (3)	Existing Class A, B or C roofing system gravel may be maintained, covered with minimum 1.9" Poly ISO 1-DWD	Any UL Classified	Max ½" (4)	7
EPDM – Fully Adhered				
Combustible (3)	Class A or B roofing system covered with HDFB (1/2" to 3"), HDFB ½" over Polystyrene, Polyiso (any thickness)	W/B EPDM	½"	4
EPDM – Mechanically Attached				
Combustible (3)	Class A or B roofing system covered with HDFB (1/2" to 3"), HDFB ½" over Polystyrene, Polyiso (any thickness)	W/B EPDM	½"	4
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				

MAINTENANCE AND REPAIR SYSTEM – CLASS C

EPDM – Mechanically Attached				
Deck Type	Insulation	Membrane	Slope	Listing
Non-Combustible and Combustible*	Existing Class B or C built-up system, cap sheet or gravel surfaced, gravel may be removed, covered with UC Industries Fan-Fold or Durapink 1" max thickness.	EPDM-Rein	1	2
(1) Thermal barrier may be 1/4" Dens Deck or 1" Atlas AC-IV				
(2) On Gypsum decking, all joints must be grouted.				
(3) Combustible Deck ratings may be used on Non-Combustible Decks				
(4) Max slope to be same as listing for membrane/insulation but can not exceed stated slope				
(5) New roofing system is mechanically fastened				