



MULE-HIDE PRODUCTS Co., Inc.

“The name trusted in roofing since 1906”

**MULE-HIDE PRODUCTS, CO., INC.
UNDERWRITERS LABORATORIES (UL)
TGFU.R13850
ROOFING SYSTEMS - EPDM
Revised October 2012**

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* Note: Assembly numbers shown in the following listings correspond to the UL Master Listing number for all **Mule-Hide Products, Co., Inc.**

Note: Assembly numbers shown in the following listings correspond to the UL Master Listing number for **Atlas Roofing Corp.

***Note: Assembly numbers shown in the following listings correspond to the UL Master Listing number for **GEORGIA-PACIFIC GYPSUM LLC**

1. Unless otherwise indicated, insulation is mechanically fastened to the roof deck.

2. The following adhesives are used for EPDM membrane systems:

A. Bonding adhesive — "Mule-Hide Bonding Adhesive" at 1 to 1-1/3 gal/sq.

B. Bonding adhesive — Uniroyal "Royal M6504" at 1 gal/75 sq.

C. Lap splice adhesive — "Mule-Hide Tape Primer" at 0.4 gal/sq followed by "Mule-Hide Black Splice Adhesive" at 1.0 gal/sq or "Mule-Hide White Splice Adhesive" at 0.8 gal/sq.

D. Lap sealant — joint edges are sealed with a nom 1/4 in. bead of "Mule-Hide Black Lap Sealant" or "Mule-Hide White Lap Sealant".

E. Lap splice adhesive — Uniroyal "Royal 6365" at 1/2 gal/100 sq.

F. Lap sealant — joint edges are sealed with a nom 1/4 in. bead of Uniroyal "Royal M6389".

G. Seam Tap — Lap splices may be sealed with "Seam Tape" and covered with "Coverstrip".

Unless otherwise indicated, when referring to gypsum board in the following classifications, the following will be referenced: G-P Gypsum DensDeck®, 1/4 in., regular gypsum board (not Classified) laid with staggered joints (6 in. offset) measuring 0.463 in. thick min and weighing 184 lbs/sq min or Georgia Pacific "Sound Deadening Board", measuring 0.208 in. thick min and weighing 109 lbs/sq min.

Straight or tapered insulation may be used in the following assemblies provided they do not exceed the indicated incline or thickness and carry a UL label.

Unless otherwise indicated, the term "Referenced Insulation" will include the following: Atlas Roofing "ACFoam I", Johns Manville "ENRGY-1A" or "ENRGY-1G" or "Barrier Board Plus", Rhoflex "Isocyanurate GL, GW or HF", Rmax Inc. "Multi-Max-3", any thickness.

Any UL Classified United Solar Systems Corp Photovoltaic (Solar) Module System may be installed over any of the following UL Classified Mule-Hide roofing membrane assemblies that utilizes gypsum board, provided that the roofing membrane is applied directly over the gypsum (either adhered to, mechanically fastened over or loosely-laid over the gypsum):

Standard EPDM, FR EPDM, White-On-Black EPDM, Standard Reinforced EPDM, FR Reinforced EPDM, TPO-c, TPO-c (FR), TPO-c Extra, TPO-c Extra (FR) and TPO-c Fleece Back.

The Module system is either self-adhered directly to the roofing membrane in the field or self-adhered to an intermediate roofing material layer in the factory and then attached to the roofing membrane in the field using liquid adhesive, tape adhesive or fasteners. The Classification applies to combustible and non-combustible decks. Any UL Classified insulation, any combination, any thickness, may be installed below the gypsum. The maximum incline and Classification (Class A, B or C) shall be in accordance with the Classification established for the membrane roofing assembly, however the incline can not exceed 1-1/2:12.

ALL SYSTEMS

Class A, B or C (See Note 1)

***1. **Deck:** C-15/32

Incline: See Notes 1 and 4

Insulation: — Any UL Classified, any thickness.

Barrier Board: (See Note 2) — ¼-in., ½-in. or 5/8-in. thick "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" with all joints staggered a min of 6 in. from the plywood joints.

Membrane: — Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation.

***2. **Deck:** C-15/32

Incline: See Notes 1 and 4

Barrier Board: (See Note 3) — ¼-in., ½-in. or 5/8-in. thick "DensDeck® Roofboard," or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" with all joints staggered a min of 6 in. from the plywood joints.

Insulation (Optional): — Fiberglass, polyisocyanurate, perlite or wood fiber, any thickness.

Membrane: — Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation.

Note 1: Classification (A, B or C) and max incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck.

Note 2: The use of the "DensDeck® Roofboard," or "DensDeck Prime® Roofboard" or (min ½ in.) DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" as a barrier board over the insulation permits the use of any Classified Roofing System (TGFU) which otherwise is limited to use over noncombustible deck.

Note 3: The use of the "DensDeck® Roofboard," or "DensDeck Prime® Roofboard" or (min ½ in.) DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" as a barrier board directly over the combustible deck permits the use of any Classified Roofing System (TGFU) which otherwise is limited to use over noncombustible deck. When used, insulation must consist of one of the types specified.

Note 4: The use of ¼ in. thick "DensDeck Prime 2™" limited to a slope of 2-1/2 in. or less.

ALL SYSTEMS

Class A

For Combustible Decks - Class A: Incline: 1/2

1. A minimum 3 in. layer or a minimum two layers of 1.5 in. of "Poly ISO 1-DWD" is placed directly over a combustible deck and is covered with any UL Classified roofing membrane used in any UL Class A roofing assembly to achieve a Class A fire Classification. As an alternative, any UL Classified insulation (except expanded or extruded polystyrene), any combination, any thickness, may be used below the 3 in. minimum total thickness of "Poly ISO 1-DWD". The insulation may be loosely laid or attached with fasteners and plates, hot roofing asphalt or cold adhesive. A vapor barrier (non-UL classified) may also be used below the insulation. All insulation joints must be staggered a minimum of 6 in. from the deck joints or from the insulation joints directly below. The maximum incline shall be in accordance with the Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

2. A minimum 1.9 in. layer of "Poly ISO 1-DWD" is placed over a minimum 1 layer of Carlisle "FR Base Sheet 1S" or Elk "VersaShield FB-1S" over a combustible deck. The insulation is covered with any UL Classified roofing membrane used in any UL Class A roofing assembly to achieve a Class A fire Classification. As an alternative, any UL Classified insulation (except expanded or extruded polystyrene), any combination, any thickness, may be used below the 1.9 in. minimum total thickness of "Poly ISO 1-DWD". The insulation may be loosely laid or attached with fasteners and plates, hot roofing asphalt or cold adhesive. A vapor barrier (non-UL classified) may also be used below the insulation. All insulation joints must be staggered a minimum of 6 in. from the deck joints or from the insulation joints directly below. The maximum incline shall be in accordance with the Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

**** For Combustible Decks - Class A:** A minimum 1 in. layer of "AC Foam IV" placed directly over a combustible deck and covered with any UL Classified roofing membrane used in any UL Class A roofing assembly to achieve a Class A fire Classification. As an alternate, any UL Classified insulation (except expanded or extruded polystyrene), any combination, any thickness, may be used above or below the 1 in. minimum total thickness of "AC Foam IV." All insulation joints must be staggered a minimum of 6 in. from the deck joints or from the insulation joints directly below. The maximum incline shall be in accordance with the Classification established for the membrane/insulation roofing assembly, however the incline cannot exceed 1:12.

ALL SYSTEMS

Class B

For Combustible Decks - Class B: Incline: 1/2

1. A minimum 1.9 in. layer of "Poly ISO 1-DWD", or a minimum 2 in. thick layer of Carlisle "Polyiso HP-WLC" or Atlas "AC Foam III" is placed directly over a combustible deck and is covered with any UL Classified roofing membrane used in any UL Class B roofing assembly to achieve a Class B fire Classification. As an alternative, any UL Classified insulation (except expanded or extruded polystyrene), any combination, any thickness, may be used below the 1.9 in. minimum thickness layer of "Poly ISO 1-DWD". The insulation may be loosely laid or attached with fasteners and plates, hot roofing asphalt or cold adhesive. A vapor barrier (non-UL classified) may also be used below the insulation. All insulation joints must be staggered a minimum of 6 in. from the deck joints or from the insulation joints directly below. The maximum incline shall be in accordance with the Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

CLASS A - BALLASTED

Unless otherwise indicated in the systems described below, the insulation and the membrane are laid loosely and surfaced with river bottom stone, nom 1-1/2 in. diameter, at 1000 lbs/sq min. Suitable alternates are size Nos. 1, 2, 24, 3 and 4 (as per ASTM D448), also at 1000 lbs/sq min. In addition, concrete pavers or crushed stone may be used. Pavers must weigh 1000 lbs/sq min and spaced no more than 1/8 in. apart and the crushed stone must meet the above size and weight requirements. Membrane splices, 3 to 4 in. wide are adhered with "Mule-Hide Black Splice Cement" at 130 to 150 lin ft/gal. Before the splice is assembled, a 3/16 in. bead of "Mule-Hide Inseam Sealant" is applied to the seam area.

Unless otherwise indicated, any of the reinforced membranes (Mule-Hide Standard Reinforced EPDM or Mule-Hide White-On-Black Reinforced EPDM) may be substituted for the membrane described in the following ballasted systems.

- 3. Deck:** NC **Incline:** 2
Insulation: — Wood fiber, polystyrene, glass fiber, Owens Corning "Roof Deck", perlite/urethane composite, phenolic, polyisocyanurate, urethane, any thickness, any combination.
Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in.
- 4. Deck:** C-15/32 **Incline:** 2
Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in.
- 5. Deck:** C-15/32 **Incline:** 1
Insulation: — 3/4 in. min perlite over 1/2 in. min wood fiber; 3/4 in. min perlite over 1/2 in. min wood fiber over 5 in. max polystyrene.
Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in.
- 6. Deck:** C-15/32 **Incline:** 2
Insulation: — One of or combination of the following, any thickness:
A. Gypsum Board.
B. Wood fiber over gypsum board.
C. Polystyrene over gypsum board.
D. Fiberglass, perlite, polyisocyanurate, urethane, phenolic.
Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in.
- 7. Deck:** C-15/32 **Incline:** 2
Insulation (Below Membrane-Optional): — One layer, any Classified insulation, any thickness.
Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in.
Insulation (Above Insulation): — Dow Chemical "Styrofoam -LG, -RM, or -RM-60", 4 in. max, or UC Industries "Foamular 154, 254 and 404", 8 in. max.
Surfacing: — As an alternate to loose laid ballast, insulation boards may be surfaced with 3/8 in. min concrete topping.

Class A – Ballasted (Continued)

12. **Deck:** NC

Incline: 2

Insulation: — "Poly ISO 1", Poly ISO 2", "Poly ISO 1-WF" or "Poly ISO 1-NB", any thickness

Membrane: — Any UL Classified membrane, loose laid.

Surfacing: — River Bottom Stone (3/4 - 1-1/2 in. diameter), 1000 lbs / sq.

CLASS A – FULLY ADHERED

Unless otherwise indicated, membrane is adhered to the insulation with Tacc International "FA661" at 1 gal/sq.

Unless otherwise indicated, the specified membrane is adhered to the insulation with Mule-Hide Bonding Adhesive at 1-1/3 gal/sq. Field membrane splices, 3 to 4 in. wide are adhered with "Mule-Hide Black Splice Cement" at 130-150 lin ft/gal. Before the splice is assembled a 3/16 in. bead of "Mule-Hide in-Seam Sealant" is applied to the seam area.

Unless otherwise indicated membranes are adhered to barrier board (wood fiberboard or gypsum board covered insulation) EPDM Systems only, with "Mule Hide Acrylic Water Based Bonding Adhesive" at 1 gal per 100 sq/ft. The field membrane splices are sealed with "Mule Hide Seam Tape".

In the Mule-Hide White-On-Black EPDM Systems described below, the installation is the same as listed above except "Mule-Hide White Splice Cement" is used in the place of "Mule-Hide Black Splice Cement". Coverage rates are the same.

Unless otherwise indicated, 7/16 in. (min) thick nonveneer APA rated oriented strand board may be substituted for wood fiber in the following systems.

Unless otherwise indicated the "Mule-Hide SP-100" or "Mule-Hide SP-100-LT" may be applied in 2-3 in. beads spaced 12 in. OC max as an alternate to full coverage.

13. Deck: NC

Incline: 1

Insulation: — Wood fiber, 1/2 to 3 in; wood fiber, 1/2 in. min, over polystyrene, phenolic, polyisocyanurate, urethane, any thickness; cellular concrete, pre-cast concrete with grouted joints or structural (poured-in-place) concrete.

Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in. or "Mule-Hide FR EPDM", 0.045 or 0.060 in.

14. Deck: NC

Incline: 1/2

Insulation: — Atlas Roofing "ACFoam II", Johns Manville "ENRGY-1A", "ENRGY-1G" or "Barrier Board Plus", Rhoflex "Isocyanurate GL, GW" or Rmax Inc. "Multi-Max-3", any thickness.

Membrane: — "Mule-Hide FR EPDM", 0.045 or 0.060 in.

15. Deck: C-15/32

Incline: 1/2

Barrier Board: — Gypsum board.

Insulation: — Atlas Roofing "ACFoam II", Johns Manville "ENRGY-1A", "ENRGY-1G", "Barrier Board Plus", Rhoflex "Isocyanurate GL, GW" or Rmax Inc. "Multi-Max-3", any thickness.

Membrane: — "Mule-Hide FR EPDM", 0.045 or 0.060 in.

Class A – Fully Adhered (Continued)

32. **Deck:** NC **Incline:** 1/2

Insulation: — Wood fiber, 1/2 to 3 in. or wood fiber, 1/2 in. min, over phenolic, polyisocyanurate, urethane, any thickness; cellular concrete with grouted joints or structural (poured-in-place) concrete.

Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in. adhered with Mule-Hide Acrylic Water-Base Bonding Adhesive at 1 gal/sq.

35. **Deck:** C-15/32 **Incline:** Unlimited

Insulation: — One of or combination of the following:

A. Gypsum Board.

B. Gypsum Board over polyisocyanurate, polystyrene, urethane, any thickness; Structodeck or Struditop wood fiberboard 1/2 in. min thickness over gypsum, Structodeck or Sturditop wood fiberboard 1/2 in. min thickness over polyisocyanurate, urethane, any total thickness, over gypsum board.

Membrane: — Mule-Hide "FR Reinforced EPDM", .045 or .060 in.

48. **Deck:** C-15/32 **Incline:** 1/2

Barrier Board: — 1/2 in. min thick gypsum board or 1/4 in. min G-P Gypsum DensDeck®, mechanically fastened with insulation fasteners (6 in. offset of gypsum board joints from plywood deck joints).

Membrane: — "Mule-Hide Standard EPDM", .045 or .060 in. or "Mule-Hide White-on-Black EPDM", .045 or .060 in. or "Mule-Hide Standard Reinforced EPDM", .045 or .060 in. adhered with "Mule-Hide Acrylic Water-Base Bonding Adhesive" at 1 gal/sq.

49. **Deck:** NC **Incline:** 1/4

Insulation: — Celotex "Hy-Therm White Line", "Hy-Therm AP" or "Hy-Therm Pyrox", any thickness.

Membrane: — "Mule-Hide FR-EPDM", 0.045 or 0.060 in.

50. **Deck:** C-15/32 **Incline:** 1/4

Barrier board: — Gypsum board.

Insulation: — Celotex "Hy-Therm White Line", "Hy-Therm AP", "Hy-Therm Pyrox", any thickness.

Membrane: — "Mule-Hide FR-EPDM", 0.045 or 0.060 in.

51. **Deck:** NC **Incline:** 1/4

Insulation: — Celotex "Hy-Therm White Line", "Hy-Therm AP", "Hy-Therm Pyrox", any thickness.

Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in.

52. **Deck:** C-15/32 **Incline:** 1/4

Barrier Board: — Gypsum board.

Insulation: — Celotex "Hy-Therm White Line", "Hy-Therm AP", "Hy-Therm Pyrox", any thickness.

Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in.

Class A – Fully Adhered (Continued)

53. Deck: NC **Incline:** 1/4
Insulation: — Celotex "Hy-Therm White Line", "Hy-Therm AP", "Hy-Therm Pyrox", any thickness.
Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in., adhered with Mule-Hide Acrylic Water-Base Bonding Adhesive at 1 gal/sq.

61. Deck: C - 7/16-in. "Mule-Hide FR Deck Panel A"* **Incline:** 1/2
Membrane: — Any UL Classified fully adhered EPDM, PVC, TPO or self-adhered modified bitumen cap sheet. Maximum incline is determined by the existing membrane Classification but cannot exceed 1/2:12.

* - All FR Deck Panel with non-coated edges require all deck joints blocked with 2 x 4 lumber. Gaps in ""Mule-Hide FR Deck Panel" are caulked with Rectorseal "FlameSafe® FS900+" caulk. All FR Deck panel with edges coated with "Blazeguard Fire-Resistant Paint", 80-250 ft²/gal., only require blocking below the open joints with 2 x 4 lumber.

104. Deck: NC **Incline:** 1/2
Insulation: — "Poly ISO 1", "Poly ISO 2", "Poly ISO 1-WF" or "Poly ISO 1-NB", any thickness, mechanically fastened.
Membrane: — "Mule-Hide FR EPDM (.060)", fully adhered with "Mule-Hide Bonding Adhesive", 1-2/3 gal/sq or "Mule-Hide SP-100 Adhesive".

108. Deck: NC **Incline:** See Note
Insulation (Optional): — Any UL Classified insulation, any thickness.
Barrier Board: — "Mule-Hide FR Deck Panel A", 7/16 in. min.
Membrane: — Any UL Classified Mule-Hide fully adhered EPDM, PVC, TPO or self-adhered modified bitumen cap sheet,

Note: Maximum incline is determined by the existing membrane/adhesive Classification.

CLASS B – FULLY ADHERED

1. **Deck:** NC **Incline:** 1/4
Insulation: — See "Referenced Insulations".
Membrane: — "Mule-Hide White-On-Black Reinforced EPDM", 0.045 or 0.060 in.

2. **Deck:** C-15/32 **Incline:** 1/4
Barrier Board: — Gypsum board.
Insulation: — See "Referenced Insulations".
Membrane: — "Mule-Hide White-On-Black Reinforced EPDM", 0.045 or 0.060 in.

13. **Deck:** NC **Incline:** 1/2
Insulation: — "Poly ISO 1", "Poly ISO 2", "Poly ISO 1-WF" or "Poly ISO 1-NB", any thickness, mechanically fastened.
Membrane: — "Mule-Hide FR EPDM (.060)", fully adhered with "Mule-Hide Bonding Adhesive", 1-2/3 gal/sq or " Mule-Hide SP-100 Adhesive".

CLASS C – FULLY ADHERED

1. **Deck:** NC **Incline:** 1
Insulation: — UC Industries "Foamular 150 or 250" or "Durapink", 2 in. max, mechanically fastened.
Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in., adhered with Mule-Hide Acrylic Water-Base Bonding Adhesive at 1 gal/sq.
2. **Deck:** C-15/32 **Incline:** 1
Barrier Board: — Gypsum board, 0.463 in. thick min, weighing 184 lb/sq min.
Insulation: — UC Industries "Foamular 150 or 250" or "Durapink", 2 in. max, mechanically fastened.
Membrane: — "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in., adhered with Mule-Hide Acrylic Water-Base Bonding Adhesive at 1 gal/sq.
5. **Deck:** C - 7/16-in. "Mule-Hide FR Deck Panel C" **Incline:** 2
Membrane: — Any UL Classified fully adhered EPDM, PVC, TPO or self-adhered modified bitumen cap sheet. Maximum incline is determined by the existing membrane Classification but cannot exceed 2:12.
17. **Deck:** C-7/16-in. "Mule-Hide FR Deck Panel" **Incline:** See Note
Insulation (Optional): — UL Classified polyisocyanurate, 1 in. thick, minimum.
Barrier Board (Optional): — G-Pgypsum min. ¼-in Dens-Deck or United States Gypsum Co. min. ¼ in. SECUROCK.
Membrane: — Any UL Classified EPDM or TPO membrane, mechanically attached or fully adhered for use as a Class C Roofing System with or without optional use of Insulation and/or Barrier Board.
18. **Deck:** NC **Incline:** See Note
Insulation (Optional): — Any UL Classified insulation, any thickness.
Barrier Board: — "Mule-Hide FR Deck Panel C, 7/16 in. min."
Membrane: — Any UL Classified Mule-Hide fully adhered EPDM, PVC, TPO or self-adhered modified bitumen cap sheet,

Note: Maximum incline is determined by the existing membrane Classification, but cannot exceed 1/2:12.

Note: Maximum incline is determined by the existing membrane/adhesive Classification.

CLASS B – MECHANICALLY FASTENED

****6. Deck: C-15/32**

Incline: 1/2, See Note

Slipsheet: — One Ply Atlas "FR-10," mechanically fastened

Membrane: — Any UL Classified PVC, CPE, CSM, CSPE, EPDM, NBP, PIB, TPO, EIP or TRE membrane. (Note: Membrane must be currently Classified for use over the insulation used. Actual incline is determined by the maximum existing membrane/insulation Classification incline, but cannot exceed 1/2:12.)

16. Deck: C-15/32

Incline: 1

Base Sheet: — One layer, mechanically fastened, one of the following:

- A. Owens Corning "Perma Ply No. 28".
- B. GAF "Gafglas #75 Base Sheet".
- C. Johns Manville "Glasbase".
- D. Tamko "Glass Base".
- E. Celotex Type G2 "Vaporbar GB".

Membrane: — "Mule-Hide Standard Reinforced EPDM", 0.045 or 0.060 in.

MAINTENANCE AND REPAIR SYSTEMS - CLASS A

8. Deck: C-15/32

Incline: 1/2

Existing Roof System: — Class A, B or C roofing system is covered with:

Barrier Board: — Gypsum board.

Membrane: — "Mule-Hide Standard Reinforced EPDM" or "Mule-Hide White-On-Black Reinforced EPDM", 0.045 or 0.060 in., mechanically fastened.

9. Deck: NC

Incline: 1

Existing Roof System: — Class A, B or C built-up system, cap sheet or gravel surfaced, gravel maintained.

Insulation: — UC Industries "Fan-Fold", one layer or "Durapink", 1 in. max, mechanically fastened.

Ply Sheet: — One or more plies Type G2.

Membrane: — "Mule-Hide Standard Reinforced EPDM", 0.045 or 0.060 in.

21. Deck: NC

Incline: See Note

Existing Roof System: — Class A, B or C roofing system (gravel may be removed from gravel built-up or ballasted single-ply system).

Insulation: — A minimum 3 in. layer or minimum two layers of "Poly ISO 1-DWD".

Membrane: — Any UL Classified roofing membrane.

Note: The maximum incline shall be in accordance with the Class A Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

22. Deck: C-15/32

Incline: See Note

Existing Roof System: — Class A, B or C roofing system (gravel may be removed from gravel built-up or ballasted single-ply system).

Insulation: — A minimum 3 in. layer or minimum two layers of "Poly ISO 1-DWD".

Membrane: — Any UL Classified roofing membrane.

Note: The maximum incline shall be in accordance with the Class A Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

MAINTENANCE AND REPAIR SYSTEMS - CLASS B

4. **Deck:** C-15/32

Incline: 1/2

Existing Roof System: — Class A or B roofing system covered with:

Insulation: — Wood fiber, 1/2 to 3 in., wood fiber over polystyrene, phenolic, polyisocyanurate, urethane, any thickness.

Membrane: — "Mule-Hide Standard EPDM", 0.045 or 0.060 in., "Mule-Hide White-On-Black EPDM", 0.045 or 0.060 in., fully adhered as described for Design A, Brite-Ply Adhered. Optionally, "Mule-Hide Standard Reinforced EPDM" or "Mule-Hide White-On-Black Reinforced EPDM", 0.045 or 0.060 in., may be mechanically fastened.

6. **Deck:** NC

Incline: See Note

Existing Roof System: — Class A, B or C roofing system (gravel may be removed from gravel built-up or ballasted single-ply system).

Insulation: — A minimum 1.9 in. layer of "Poly ISO 1-DWD".

Membrane: — Any UL Classified roofing membrane.

Note: The maximum incline shall be in accordance with the Class A Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

7. **Deck:** C-15/32

Incline: See Note

Existing Roof System: — Class A, B or C roofing system (gravel may be removed from gravel built-up or ballasted single-ply system).

Insulation: — A minimum 1.9 in. layer of "Poly ISO 1-DWD".

Membrane: — Any UL Classified roofing membrane.

Note: The maximum incline shall be in accordance with the Class A Classification established for the membrane/insulation roofing assembly, however the incline can not exceed 1/2:12.

CLASS C

1. **Deck:** NC

Incline: 1

Existing Roof System: — Class A, B or C roofing system, covered with:

Insulation: — Wood fiber, 1/2 to 3 in.

Membrane: — "Mule-Hide Standard EPDM", 0.045 in., mechanically attached as described for Design NP. Optionally, the above membrane or the 0.060 in. membrane can be fully adhered.

2. **Deck:** NC

Incline: 1

Existing Roof System: — Class A, B or C built-up system, cap sheet or gravel surfaced, gravel may be removed.

Insulation: — UC Industries "Fan-Fold", one layer or "Durapink", 1 in. max, mechanically fastened.

Slip Sheet (Optional): — Atlas Roofing "FR-10".

Membrane: — "Mule-Hide Standard Reinforced EPDM", 0.045 or 0.060 in.