



## TGFU.R15546 Roofing Systems

[Page Bottom](#)

### Roofing Systems

[See General Information for Roofing Systems](#)

#### IB ROOF SYSTEMS

R15546

SUITE 150  
8181 JETSTAR DR  
IRVING, TX 75063 USA

Noncombustible roof deck classifications are applicable for use over minimum 15/32-in. thick combustible roof decks when a barrier board of minimum 1/2-in. thick gypsum board or minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or Certainteed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)" are used directly over a plywood roof deck with all butt joints in the barrier board staggered a minimum of 6-in. from plywood roof deck butt joints.

Any system listed for use over a combustible roof deck can be installed over a non-combustible roof deck and achieve the same classification.

Uniform thickness or tapered insulation may be used in the following systems provided they do not exceed the indicated incline or thickness.

"IB PVC Fleeceback" products are acceptable alternates to the "IB PVC" products.

Unless otherwise indicated the insulation may be mechanically attached, adhered with any UL Classified adhesive or hot mopped.

Any UL Classified Insulation may be used below a barrier board of minimum 1/2-in. thick gypsum board or minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or Certainteed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)".

#### SINGLE PLY MEMBRANE SYSTEMS

"IB" (CPA) is produced 40 to 80 mil thickness.

For non-combustible roof deck applications one of the following insulation attachments may be used: (1) mechanically fastened (2) hot mopping asphalt (3) "Instastick" deck adhesive (4) Ashland Inc. "Pliodeck" adhesive in accordance with the manufacturers recommendations.

##### Class A - Ballasted

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

**Incline:** 2

**Insulation:** — Any UL Classified insulation, any thickness.

**Membrane:** — "IB" (CPA) or IB PVC Single Ply/IB PVC Single Ply.

**Surfacing:** — River bottom stone (3/4 to 1 1/2 in. diam) at 1000 lbs/100-ft.<sup>2</sup>.

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

**Incline:** 2

**Insulation:** — Polystyrene, polyisocyanurate, perlite, wood fiber, gypsum board, any thickness, laid loosely.

**Slip Sheet (Optional):** — Glass fiber reinforced kraft paper.

**Membrane:** — "IB PVC" laid loosely.

**Surfacing:** — River bottom stone (1/2 to 2 1/2-in. diameter) 1000 lbs/100-ft.<sup>2</sup>, or crushed stone (1/2 to 3/4-in.) applied at minimum of 900-lbs/100-ft.<sup>2</sup>, or concrete blocks (10-lb/ft.<sup>2</sup>) spread not more than 1/8-in. apart, or "STYROFOAM" panels surfaced with 3/8-in. (maximum) concrete mortar (panels to be abutted together).

##### Class A - Fully Adhered

1. **Deck:** NC

**Incline:** 2

**Insulation:** — Any UL Classified HD wood fiber board, "IB Energy Board II" or Atlas Roofing Corp. "ACFoam II" or Firestone Building Products Co. LLC "Iso 95+GL" or "Iso 95+GW" or Johns Manville "ENRGY 2A" or Rmax Operating LLC "Multi-Max", any thickness, mechanically attached or hot mopped.

**Membrane:** — "IB" (CPA), adhered with Ashland Inc. "Pliobond 7500" bonding adhesive, at 1-gal/160-ft.<sup>2</sup>. The overlapping membrane joints are heat sealed.

2. **Deck:** NC

**Incline:** 2

**Insulation:** — "IB Energy Board II" or "IB Energy Board III" or Johns Manville "ENRGY 2" or Atlas Roofing Corp. "ACFoam II", "ACFoam III" or Firestone Building Products Co. LLC "ISO 95+GL", any thickness.

**Membrane:** — "IB" (CPA), with "IB Contact Adhesive" at 60-ft.<sup>2</sup>/gal.

3. **Deck:** NC

**Incline:** 2

**Insulation:** — Any UL Classified EPS Composite (EPS/perlite, perlite side up or EPS/wood fiber, wood fiber side up) any thickness.  
**Barrier Board (Optional):** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board with all joints staggered 6-in. from the plywood joints, mechanically attached or adhered.

**Membrane:** — "IB" (CPA), adhered with Ashland Inc. "Pliobond 7500" bonding adhesive, at 1-gal/160-ft.<sup>2</sup> or "IB Contact Adhesive" at 1-gal/60-ft.<sup>2</sup>. The overlapping joints are heat-sealed.

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

**Incline:** Unlimited

**Impact:** 4

**Insulation:** — Any UL Classified insulation, any thickness:

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board with all joints staggered 6-in. from the plywood joints, mechanically attached or adhered.

**Membrane:** — "IB" (CPA) adhered with TACC "LA 432" adhesive at 1-gal/60-ft.<sup>2</sup> or "FA 636" adhesive at 1-gal/140-ft.<sup>2</sup>.

5. **Deck:** NC

**Incline:** 1

**Insulation:** — One of the following, any thickness:

- a. Firestone Building Products Co. LLC "ISO 95+GL"
- b. Johns Manville "ENRGY 3"

**Membrane:** — "IB PVC Single PlyIB PVC Single Ply®", adhered with TACC "LA 432" adhesive at 1-gal/60-ft.<sup>2</sup> or "FA 636" adhesive at 1-gal/140-ft.<sup>2</sup>.

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

**Incline:** Unlimited

**Impact:** 4

**Insulation:** — Any UL Classified insulation, any thickness:

**Barrier Board:** — Minimum 1/4-in. Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or United States Gypsum Co. SECUROCK Glass-Mat Roof Board, CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board with all joints staggered 6-in. from the plywood joints, mechanically attached or adhered.

**Membrane:** — "IB PVC Single PlyIB PVC Single Ply®", adhered with TACC "LA 432" adhesive at 1-gal/60-ft.<sup>2</sup> or "FA 636" adhesive at 1-gal/140-ft.<sup>2</sup>.

7. **Deck:** NC

**Incline:** 1-1/2

**Insulation:** — One of the following, any thickness:

- a. Atlas Roofing Corp. "ACFoam II"
- b. Atlas Roofing Corp. "ACFoam III"
- c. "IB Energy Board II"
- d. "IB Energy Board III"

**Membrane:** — "IB PVC Single PlyIB PVC Single Ply®", adhered with TACC "LA 432", "LA432M" or Ashland "7008" adhesive at 1-gal/60-ft.<sup>2</sup>.

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

**Incline:** Unlimited

**Vapor Barrier (Optional):** — Polyethylene, Kraft or Soprema Inc. "SopraVap'r", self-adhered.

**Insulation:** — "IB Energy Board II", "IB Energy Board III", Atlas Roofing Corp. "ACFoam II", "ACFoam III" or "CoverBoard HS", any thickness mechanically attached or adhered with any UL Classified adhesive.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or CertainTeed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)", loose laid, mechanically fastened or adhered with any UL Classified insulation adhesive with all butt joints in the barrier board staggered a minimum of 6-in. from the plywood roof deck butt joints.

**Membrane:** — "IB PVC-GR 60" and "IB PVC-GR 60FB", adhered with Ashland Inc. "Pliobond 7008" at 0.625 gal/100-ft.<sup>2</sup> (160-ft<sup>2</sup>/gal) or Ashland Inc. "Pliobond 1746" at 1.67-gal/100-ft.<sup>2</sup> (60-ft<sup>2</sup>/gal).

9. **Deck:** NC

**Incline:** 3

**Vapor Barrier (Optional):** — Polyethylene, Kraft or Soprema Inc. "SopraVap'r", self-adhered.

**Insulation:** — "IB Energy Board II", "IB Energy Board III", Atlas Roofing Corp. "ACFoam II", "ACFoam III" or "CoverBoard HS", any thickness mechanically attached or adhered with any UL Classified adhesive.

**Barrier Board (Optional):** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or CertainTeed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)", loose laid, mechanically fastened or adhered with any UL Classified insulation adhesive with all butt joints in the barrier board staggered a minimum of 6-in. from the plywood roof deck butt joints.

**Membrane:** — "IB PVC-GR 60" and "IB PVC-GR 60FB", adhered with Ashland Inc. "Pliobond 7008" at 0.625 gal/100-ft.<sup>2</sup> (160-ft<sup>2</sup>/gal) or "Pliobond 1746" at 1.67-gal/100-ft.<sup>2</sup> (60-ft<sup>2</sup>/gal).

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

**Incline:** 1/2

**Barrier Board (Not required for noncombustible roof decks):** — 1/2-in. minimum thick gypsum board mechanically fastened with insulation fasteners (6-in. offset of gypsum board joints from plywood deck joints).

**Insulation:** — Atlas Roofing Corp. "ACFoam II" or 3/4-in. minimum wood fiberboard over EPS.

**Membrane:** — "IB PVC" fully adhered with TAAC International Corp. "LA-432" applied at 2-gal/100-ft.<sup>2</sup> or TAAC International Corp. "LA-636" at applied at 21/4-gal/100-ft.<sup>2</sup>.

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

**Incline:** 2

**Barrier Board:** — 1/2-in. minimum thick gypsum board, mechanically fastened with insulation fasteners. (6-in. offset of gypsum board joints from plywood deck joints.

**Insulation:** — 3/4-in. minimum wood fiberboard over EPS.

**Membrane:** — IB PVC", fully adhered to the insulation with TAAC International Corp. "LA-432" applied at 2-gal/100-ft.<sup>2</sup> or TAAC International Corp. "LA-636" at applied at 2-1/4-gal/100-ft.<sup>2</sup>.

12. **Deck:** NC

**Incline:** 1/2

**Insulation:** — Atlas Roofing Corp. "ACFoam II" or 3/4-in. minimum wood fiberboard over EPS.

**Membrane:** — "IB PVC" fully adhered with TAAC International Corp. "LA-432" applied at 2-gal/100-ft.<sup>2</sup> or "LA-636" at applied at 21/4-gal/100-ft.<sup>2</sup>.

13. **Deck:** NC

**Incline:** 1/2

**Membrane:** — "IB PVC" fully adhered with TAAC International Corp. "LA-636" applied at 21/4-gal/100-ft.<sup>2</sup>.

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

**Incline:** Unlimited

**Insulation (Optional):** — Any UL Classified (except EPS), any thickness, uniform or tapered.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" mechanically fastened with (butt joints of barrier board must be staggered a minimum of 6-in. from the plywood deck butt joints; staggered joints not required for noncombustible roof decks).

**Membrane:** — "IB PVC" fully adhered with TAAC International Corp. "LA-432" applied at 2-gal/100-ft.<sup>2</sup>.

#### **Class B - Fully Adhered (PVC)**

1. **Deck:** NC

**Incline:** 3

**Insulation:** — Atlas Roofing Corp. "ACFoam II" any thickness.

**Membrane:** — "IB PVC" fully adhered with TAAC International Corp. "LA-432" applied at 2-gal/100-ft.<sup>2</sup>.

#### **Class A - Mechanically Fastened**

1. **Deck:** NC

**Incline:** 2

**Insulation:** — Glass fiber, Johns Manville "Fesco-Foam", perlite or HD Wood fiber Board, 3/4 to 4-in.

**Membrane:** — "IB" (CPA).

2. **Deck:** NC

**Incline:** 2

**Insulating Concretes:** — Cellular, gypsum vermiculite, perlite or structural, poured in place over deck.

**Membrane:** — "IB" (CPA).

3. **Deck:** NC

**Incline:** 2

**Insulation:** — Any UL Classified polystyrene, any thickness.

**Slip Sheet:** — Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA).

4. **Deck:** NC

**Incline:** 2

**Slip Sheet (Optional):** — Atlas Roofing Corp. "FR-10" or "IB Fire Sheet 10".

**Insulation:** — "IB Energy Board II", Atlas Roofing Corp. "ACFoam II" or "ACFoam Supreme", any thickness, hot mopped in place or mechanically fastened.

**Membrane:** — "IB" (CPA).

5. **Deck:** NC

**Incline:** 1

**Insulation:** — Any UL Classified polystyrene, any thickness.

**Slip Sheet:** — Atlas Roofing Corp. "FR-10" or "IB Fire Sheet 10".

**Membrane:** — "IB" (CPA).

6. **Deck:** NC

**Incline:** 3

**Insulation:** — Atlas Roofing Corp. "ACFoam II" or "ACF III", "IB Energy Board II", "IB Energy Board III", Firestone Building Products Co. LLC "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax Operating LLC "Multi-Max", any thickness.

**Membrane:** — "IB" (CPA).

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

**Incline:** 3

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ®, DensDeck Prime®" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in. (minimum) gypsum board with all joints staggered a minimum of 6-in. from the plywood joints.

**Insulation:** — Atlas Roofing Corp. "ACFoam II" or "ACF III" or "IB Energy Board II", "IB Energy Board III" or Firestone Building Products Co. LLC "ISO 95+GL" or "ISO 95+GW" or Johns Manville "ENRGY 2A" or Rmax Operating LLC "Multi-Max", or "Thermarof Plus", any thickness.

**Membrane:** — "IB" (CPA).

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

**Insulation (Optional):** — Any UL Classified, any thickness.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck®, DensDeck Prime®" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board," or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board with all joints staggered a minimum of 6-in. from the plywood joints.

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

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

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR-50" or "IB PVC Single Ply".

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

10. **Deck:** NC **Incline:** 1

**Insulation:** — Owens Corning Specialty Products "Foamular", any thickness.

**Slip Sheet:** — Atlas Roofing. "FR-10" or "FR-50" or "IB Fire Sheet 10" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — One layer Atlas Roofing Corp. "FR-10", or "FR-50", "IB Fire Sheet 10" or "IB Fire Sheet 50".

**Insulation:** — "IB Energy Board III" or Atlas Roofing Corp. "ACFoam III", 1.5-in. minimum thickness with all joints staggered 6-in. minimum. from plywood joints.

**Membrane:** — "IB" (CPA).

12. **Deck:** NC **Incline:** 3

**Insulation:** —

a. Firestone Building Products Co. LLC "ISO 95+GL"

b. Johns Manville "ENRGY 2"

c. Rmax Operating LLC "Multi-Max FA"

d. Atlas Roofing Corp. "ACFoam II"

e. Atlas Roofing Corp. "ACFoam III"

f. Johns Manville "ISO 1"

g. "IB Energy Board II"

h. "IB Energy Board III"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR-50".

**Insulation:** — 1.5-in. minimum with all joints staggered 6-in. (minimum) from the plywood joints.

a. Firestone Building Products Co. LLC "ISO 95+GL"

b. Johns Manville "ENRGY-2"

c. Rmax Operating LLC "Multi-Max FA"

d. Atlas Roofing Corp. "ACFoam II"

e. Atlas Roofing Corp. "ACFoam III"

f. Johns Manville "ISO 1"

g. "IB Energy Board II"

h. "IB Energy Board III"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — One layer Atlas Roofing Corp. "FR-10" or "FR-50".

**Insulation:** — Atlas Roofing Corp. "ACFoam III" or "IB Energy Board III", 1.5-in. minimum thickness with all joints staggered 6-in. minimum from the plywood joints.

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

16. **Deck:** C-15/32 **Incline:** 3/4, See Note

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR-10" or "IB Fire Sheet 10" mechanically fastened.

**Insulation (Optional):** — Any UL Classified, any thickness (except EPS and wood fiberboard).

**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.)

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

**Slip Sheet:** — Two layers GAF "VersaShield Underlayment" or "IB Fire Sheet - 2".  
**Membrane:** — "IB" (CPA).

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

**Incline:** 2

**Slip Sheet:** — Two layers GAF "VersaShield Underlayment".

**Insulation:** — Firestone Building Products Co. LLC "ISO 95+GL" or "ISO 95+GW" or Johns Manville "ENRGY 2A" or Rmax Operating LLC "Multi-Max", any thickness.

**Membrane:** — "IB" (CPA).

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

**Incline:** 2

**Slip Sheet:** — Two layers GAF "VersaShield Underlayment".

**Insulation (Optional):** —

a. Firestone Building Products Co. LLC "ISO 95+GL"

b. Johns Manville "ENRGY 2"

c. Rmax Operating LLC "Multi-Max FA"

d. Atlas Roofing Corp. "ACFoam II"

e. Atlas Roofing Corp. "ACFoam III"

f. Johns Manville "ISO 1"

g. "IB Energy Board II"

h. "IB Energy Board III"

**Membrane:** — "IB" (CPA).

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

**Incline:** 1/2

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR 50" or "IB Fire Sheet 50".

**Insulation:** — 1.5-in. minimum with all joints staggered 6-in. (minimum) from the plywood joints

a. Firestone Building Products Co. LLC "ISO 95+GL"

b. Johns Manville "ENRGY 2"

c. Rmax Operating LLC "Multi-Max FA"

d. Atlas Roofing Corp. "ACFoam II"

e. Atlas Roofing Corp. "ACFoam III"

f. Johns Manville "ISO 1"

g. "IB Energy Board II"

h. "IB Energy Board III"

**Membrane:** — "IB PVC Single Ply".

21. **Deck:** NC

**Incline:** 2-1/2

**Insulation:** — One of the following, any thickness:

a. Atlas Roofing Corp "AC Foam II"

b. Atlas Roofing Corp "AC Foam III"

c. "IB Energy Board II"

d. "IB Energy Board III"

**Membrane:** — "IB PVC Single Ply".

22. **Deck:** NC

**Incline:** 1/2

**Slip Sheet (Optional):** — Any UL Classified Slip Sheet.

**Insulation:** — (1-in. minimum) One of the following:

a. Rmax Inc./Slip sheet (optional) - "Multi-Max"

b. Owens Corning "Foamular 150," "Foamular 250," in combination with one ply Atlas Roofing Corp. "FR-10"

**Membrane:** — "IB PVC"

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

**Incline:** 1/2

**Insulation:** — 1/2-in. gypsum board - (joint staggered a minimum of 6-in. with the joints in plywood); (optional) Branch River Foam 1.0 pcf EPS - 1/2-in. max.

**Slip Sheet (Optional when EPS is not used):** — 1 ply Atlas Roofing Corp. "FR-50"

**Membrane:** — "IB PVC"

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

**Incline:** 1/2

**Barrier Board:** — 1/2-in. minimum gypsum board, mechanically fastened (joints in gypsum board are staggered a minimum of 6-in. from plywood deck joints). The following insulations may be any thickness:

**Insulation/Slip Sheet:** —

a. Rmax Inc. "Multi-Max" / 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

b. Atlas Roofing Corp. "ACFoam II" / 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

c. Owens Corning "Foamular 150," "Foamular 250" or Dow Chemical "Styrofoam SM" / 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

d. Polyisocyanurate (1-in. minimum) covered by perlite (3/4-in. minimum) / (optional) 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

e. BASF EPS (uniform thickness or tapered), covered with perlite (3/4-in. minimum) / (optional) 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

**Membrane:** — "IB PVC" (PVC).

25. **Deck:** NC

**Incline:** 1

**Barrier Board (Optional):** — 1/2-in. minimum gypsum board or 3/4-in. perlite, mechanically fastened.

**Insulation:** — Dow Chemical "Styrofoam SM, RM, TG or Grayboard," 1-in. minimum.

**Slip Sheet:** — 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10" or 3/4-in. minimum perlite with no slip-sheet.  
**Membrane:** — "IB PVC" mechanically fastened.

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

**Insulation:** — Rmax Inc. "Multi-Max" (1-in. minimum)  
**Slip Sheet (Optional):** — Two layers GAF "VersaShield Underlayment".  
**Membrane:** — "IB PVC".

27. **Deck:** NC **Incline:** 1

**Insulation:** — Atlas Roofing Corp. "ACFoam II" (1-in. minimum), mechanically fastened or hot mopped.  
**Membrane:** — "IB PVC".

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

**Barrier Board:** — 1/2-in. gypsum board, joints staggered a minimum 6-in. from the plywood joints.  
**Membrane:** — "IB PVC".

29. **Deck:** NC **Incline:** 1

**Insulation:** — Cellular concrete, gypsum concrete, vermiculite concrete, perlite concrete or structural concrete.  
**Membrane:** — "IB PVC".

30. **Deck:** NC **Incline:** 4

**Insulation:** — One of the following or combinations of the following insulations any thickness, polyisocyanurate or wood fiberboard.  
**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board  
**Membrane:** — "IB PVC".

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

**Insulation:** — Polystyrene, any thickness.  
**Insulation (Optional if slip sheet is used):** — Polyisocyanurate, 1-in. minimum thickness.  
**Slip Sheet (Optional if polyisocyanurate is used):** — 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10."  
**Membrane:** — "IB PVC" mechanically fastened.

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

**Insulation (Optional):** — Polyisocyanurate, any thickness.  
**Insulation:** — Polystyrene, any thickness (uniform or tapered).  
**Insulation (Optional):** — Polyisocyanurate, 1-in. minimum thickness.  
**Slip Sheet (Optional if polyisocyanurate is used):** — 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10".  
**Membrane:** — "IB PVC" mechanically fastened.

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

**Barrier Board:** — Minimum 1/2-in. gypsum board (joints staggered a minimum of 6-in. from the plywood deck joints).  
**Insulation (Optional):** — Polyisocyanurate, any thickness.  
**Cover Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.  
**Membrane:** — "IB PVC".

34. **Deck:** Structural Cement-Fiber Unit\* **Incline:** 1

**Insulation:** — Atlas Roofing Corp. "ACFoam II" or Rmax Inc. "Multi-Max" (1-in. minimum).  
**Slip Sheet (Optional):** — Any UL Classified.  
**Membrane:** — "IB PVC".  
\* Minimum 2-in. thick, Classified under Structural Cement-Fiber Units (CIYT) Fire Resistance Directory.

35. **Deck:** Structural Cement-Fiber Unit\* **Incline:** 1/2

**Membrane:** — "IB PVC".  
\* Minimum 2-in. thick, Classified under Structural Cement-Fiber Units (CIYT) Fire Resistance Directory.

36. **Deck:** NC **Incline:** 2-1/2

**Insulation:** — Atlas Roofing Corp. "ACFoam II" 1-in. minimum, mechanically fastened.  
**Membrane:** — "IB PVC".

37. **Deck:** NC **Incline:** 4

**Barrier Board (Optional):** — 1/2-in. minimum gypsum board.  
**Insulation (Optional):** — Polyisocyanurate, any thickness.  
**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Membrane:** — "IB PVC".

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

**Incline:** Unlimited

**Insulation (Optional):** — Polyisocyanurate, urethane, wood fiber, polystyrene, EPS, polyisocyanurate composite mechanically fastened, any thickness.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECURROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Membrane:** — "IB PVC".

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

**Incline:** 1/2

**Slip Sheet:** — Two plies "IB Fire Sheet 50" or Atlas Roofing Corp. "FR 50".

**Membrane:** — "IB PVC".

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

**Incline:** Unlimited

**Slip Sheet:** — Four plies Atlas Roofing "FR-10" or "IB Fire Sheet 10", mechanically fastened.

**Membrane:** — "IB CPA", "IB PVC Single Ply" or "IB PVC", mechanically fastened.

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

**Incline:** 3

**Insulation (Optional):** — Any UL Classified polyisocyanurate insulation, any thickness.

**Slip Sheet:** — Four plies Atlas Roofing "FR-10" or "IB Fire Sheet 10", mechanically fastened.

**Membrane:** — "IB CPA", "IB PVC Single Ply" or "IB PVC", mechanically fastened.

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

**Incline:** 2

**Insulation (Optional):** — Any UL Classified insulation, any thickness.

**Slip Sheet:** — Three plies Atlas Roofing "FR-10" or "IB Fire Sheet 10", mechanically fastened.

**Membrane:** — "IB CPA", "IB PVC Single Ply" or "IB PVC", mechanically fastened.

#### Class B - Mechanically Fastened

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

**Incline:** 3/4

**Slip Sheet:** — Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Insulation:** — "IB Energy Board II", Atlas Roofing Corp. "ACFoam II" or "ACFoam Supreme", 1.5-in. minimum thickness, offset 6-in. from joints in plywood, hot mopped or mechanically fastened.

**Membrane:** — "IB" (CPA).

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

**Incline:** 1/2

**Slip Sheet:** — One layer Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

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

**Incline:** 1/2

**Slip Sheet:** — One ply Atlas Roofing Corp. "FR-10," "IB Fire Sheet 10" mechanically fastened.

**Membrane:** — Any UL Classified TPO or CPA membrane. (Note: Actual incline is determined by the maximum existing membrane Classification incline, but cannot exceed 1/2:12.)

4. **Deck:** NC

**Incline:** Unlimited

**Insulation:** — Any UL Classified insulation, any thickness.

**Slip Sheet:** — One ply Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

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

**Incline:** 1

**Slip Sheet:** — Two layers Atlas Roofing Corp. "FR-50" or "IB Fire Sheet 50".

**Membrane:** — "IB" (CPA) or "IB PVC Single Ply".

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

**Incline:** 1-1/2

**Slip Sheet:** — One layer GAF "VersaShield Underlayment".

**Membrane:** — "IB" (CPA).

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

**Incline:** 1-1/2

**Slip Sheet:** — One layer GAF "VersaShield Underlayment".

**Insulation:** — Firestone Building Products Co. LLC "ISO 95+GL" or "ISO 95+GW" or Johns Manville "ENRGY 2A" or Rmax Operating LLC "Multi-Max" or "Therमारooof Plus", any thickness.

**Membrane:** — "IB" (CPA).

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

**Incline:** 1-1/2

**Slip Sheet:** — One layer GAF "VersaShield Underlayment".

**Insulation:** —

- a. Firestone Building Products Co. LLC "ISO 95+GL"
  - b. Johns Manville "ENRGY 2"
  - c. Rmax Operating LLC "Multi-Max FA"
  - d. Atlas Roofing Corp. "ACFoam II"
  - e. Atlas Roofing Corp. "ACFoam III"
  - f. Johns Manville "ISO 1"
  - g. "IB Energy Board II"
  - h. "IB Energy Board III"
- Membrane:** — "IB" (CPA).

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

**Incline:** 1

**Insulation:** — Any UL Classified Polystyrene, minimum 3/4-inch thick.

**Slip Sheet:** — Two layers GAF "VersaShield Underlayment".

**Membrane:** — "IB" (CPA).

10. **Deck:** NC

**Incline:** 3

**Barrier Board:** — For standing seam steel decks, 2-in. maximum perlite between the seams.

**Insulation:** — Atlas Roofing Corp. "ACFoam II" any thickness.

**Membrane:** — "IB PVC".

11. **Deck:** NC

**Incline:** No Limitations

**Insulation:** — Polyisocyanurate, any thickness.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Membrane:** — "IB PVC".

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

**Incline:** 1/2

**Slip Sheet:** — Two plies "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10".

**Membrane:** — "IB PVC".

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

**Incline:** 1/2

**Slip Sheet:** — One ply "IB Fire Sheet 50" or Atlas Roofing Corp. "FR-50".

**Membrane:** — "IB PVC".

#### Class C - Mechanically Fastened (PVC)

1. **Deck:** NC

**Incline:** Unlimited

**Insulation:** — Atlas Roofing Corp. "ACFoam II" mechanically fastened, 1-in. minimum.

**Membrane:** — "IB PVC".

#### MAINTENANCE AND REPAIR SYSTEMS

##### Class A

1. **Deck:** NC

**Incline:** 2

**Existing Roof System:** — Class A BUR covered with:

**Membrane:** — "IB" (CPA), mechanically fastened with metal screws and discs per manufacturer's instructions.

2. **Deck:** NC

**Incline:** 1/4

**Existing Roof System:** — Class A, B or C BUR covered with:

**Insulation:** — 1-in. phenolic, covered with Johns Manville 1/2-in. "Retrofit Board".

**Membrane:** — "IB" (CPA), mechanically fastened.

3. **Deck:** NC

**Incline:** 1/2

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

**Insulation:** — Insulfoam "R-TECH" Types "I", "VIII", "II", "IX" or "FanFold" 1-in. maximum thickness.

**Membrane:** — "IB" (CPA), mechanically fastened.

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

**Incline:** 1/2

**Existing Roof System:** — Class A, B or C built up system, smooth surface or gravel surfaced, gravel may be removed.

**Insulation:** — Insulfoam "R-TECH" Types "I", "VIII", "II", "IX" or "FanFold" any thickness.

**Membrane:** — "IB" (CPA).

**Surfacing:** — River bottom stone (3/4-in. to 1 1/2-in. diameter) at 900-lbs/100-ft.<sup>2</sup>.

5. **Deck:** NC

**Incline:** 1/2

**Existing Roof System:** — Insulated or noninsulated cap sheet, smooth or gravel surfaced (loose gravel may be removed).

**Barrier Board (Optional):** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed



Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Insulation/Slip Sheet:** — (any thickness)

- a. Perlite/(optional) 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"
- b. Rmax Inc. "Multi-Max"/1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"
- c. Atlas Roofing Corp. "ACFoam II"/"IB Fire Sheet 10" or 1 ply Atlas Roofing Corp. "FR-10"
- d. Owens Corning "Foamular 150," "Foamular 250" or Dow Chemical "Styrofoam SM"/1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"
- e. Polyisocyanurate (1.0-in. minimum) covered by perlite (3/4-in. minimum)/(optional) 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"
- f. BASF EPS (uniform thickness or tapered), covered with perlite (3/4-in. minimum)/(optional) 1 ply "IB Fire Sheet 10" or Atlas Roofing Corp. "FR-10"

**Membrane:** — "IB PVC"

6. **Deck:** NC

**Incline:** 3

**Existing Roof System:** — Insulated or noninsulated cap, sheet smooth or gravel surfaced (loose gravel may be removed).

**Barrier Board (Optional):** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Insulation:** — Atlas Roofing Corp. "ACFoam II," mechanically fastened any thickness.

**Membrane:** — "IB PVC".

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

**Incline:** 1

**Existing Roof System:** — Insulated or noninsulated cap sheet, smooth or gravel surfaced bur (gravel may be removed from noncombustible decks) or PVC roof system, covered with:

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard", "DensDeck Prime® Roofboard", "DensDeck DuraGuard™ Roofboard" or United States Gypsum Co. "SECUROCK Glass-Mat Roof Board" or CertainTeed Gypsum "GlasRoc" or 1/2-in Gypsum Board.

**Membrane:** — "IB PVC".

#### Class A, B or C

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

**Incline:** 1/2

**Existing Roof System** — Class A, B or C to retain existing Classification, BUR covered with gravel maintained at 400-lbs/100-ft.<sup>2</sup>.

**Separation Sheet:** — Amocor P14, PB4 or PB6.

**Membrane:** — "IB" (CPA), mechanically attached.

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

**Incline:** Unlimited

**Existing Roof System:** — Class A to retain existing Classification, Insulated or Uninsulated cap sheet or smooth surfaced roof.

**Insulation (Optional):** — Polyisocyanurate, any thickness.

**Barrier Board:** — Minimum 1/2-in. gypsum board.

**Membrane:** — "IB" (CPA), mechanically attached.

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

**Incline:** 1-1/2

**Existing Roof System:** — Any Class A, B or C built-up roof system.

**Slip Sheet:** — One layer GAF "VersaShield Underlayment", mechanically fastened.

**Roof Covering:** — "IB" (CPA), mechanically attached.

4. **Deck:** NC

**Incline:** 1/2

**Existing Roof System:** — Class A, B or C built up systems, smooth surfaced, cap sheet or gravel surfaced (gravel maintained) to retain the existing Classification.

**Insulation:** — "R-TECH" Type "I", "VIII", "II", "IX" or "FanFold" or "Insulfoam" Type "I", "VIII", "II", "IX", 1-in. max thickness.

**Membrane:** — "IB" (CPA), mechanically fastened.

**Surfacing:** — River bottom stone (3/4-in. to 1 1/2-in. diameter) at 900-lbs/100-ft.<sup>2</sup>.

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

**Incline:** 1/2

**Existing Roof System:** — Class A, B or C built up systems, smooth surfaced, cap sheet or gravel surfaced (gravel maintained) to retain the existing Classification.

**Insulation:** — "R-TECH" Type "I", "VIII", "II", "IX" "FanFold" or "Insulfoam" Type "I", "VIII", "II", "IX", 1 in. max thickness.

**Membrane:** — "IB" (CPA), mechanically fastened.

**Surfacing:** — River bottom stone (3/4-in. to 1 1/2-in. diameter) at 900 lbs/100-ft.<sup>2</sup>.

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

**Incline:** 1-1/2, See Note

**Existing Roof System:** — Any Class A, B or C built-up roof system to maintain existing classification.

**Slip Sheet:** — One layer Atlas Roofing Corp. "FR-10" or "IB Fire Sheet 10" mechanically fastened.

**Roof Covering:** — Any BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO, EIP or TRE membrane system. "IB PVC Single Ply".

**Note:** Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGfU) currently limited to noncombustible deck, but not to exceed 1 1/2-in. slope.

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

**Incline:** Unlimited

**Existing Roof System:** — Any Class A, B or C UL Classified single ply membrane system, mechanically fastened or fully adhered, non-insulated or insulated, to retain existing Classification.

**Vapor Barrier (Optional):** — Polyethylene, Kraft or Soprema Inc. "SopraVap'r", self-adhered.

**Insulation:** — "IB Energy Board II", "IB Energy Board III", Atlas Roofing Corp. "ACFoam II", "ACFoam III" or "CoverBoard HS", any thickness mechanically attached or adhered with any UL Classified adhesive.

**Barrier Board:** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or Certainteed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)", loose laid, mechanically fastened or adhered with any UL Classified insulation adhesive with all butt joints in the barrier board staggered a minimum of 6-in. from the plywood roof deck butt joints.

**Membrane:** — "IB PVC-GR 60" and "IB PVC-GR 60FB", adhered with Ashland Inc. "Pliobond 7008" at 0.625-gal/100-ft.<sup>2</sup> (160-ft<sup>2</sup>/gal) or "Pliobond 1746" at 1.67-gal/100-ft.<sup>2</sup> (60-ft<sup>2</sup>/gal).

8. **Deck:** NC

**Incline:** 3

**Existing Roof System:** — Any Class A, B or C UL Classified single ply membrane system, mechanically fastened or fully adhered, non-insulated or insulated, to retain existing Classification.

**Vapor Barrier (Optional):** — Polyethylene, Kraft or Soprema Inc. "SopraVap'r", self-adhered.

**Insulation:** — "IB Energy Board II", "IB Energy Board III", Atlas Roofing Corp. "ACFoam II", "ACFoam III" or "CoverBoard HS", any thickness mechanically attached or adhered with any UL Classified adhesive.

**Barrier Board (Optional):** — Minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck ® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck Prime 2™ Roofboard" or "DensDeck DuraGuard® Roofboard" or Certainteed Gypsum Inc. "GlasRoc" or United States Gypsum Co. "SECUROCK® Glass-Mat Roof Board (Type SGMRX)", loose laid, mechanically fastened or adhered with any UL Classified insulation adhesive with all butt joints in the barrier board staggered a minimum of 6-in. from the plywood roof deck butt joints.

**Membrane:** — "IB PVC-GR 60" and "IB PVC-GR 60FB", adhered with Ashland Inc. "Pliobond 7008" at 0.625-gal/100-ft.<sup>2</sup> (160-ft<sup>2</sup>/gal) or "Pliobond 1746" at 1.67-gal/100-ft.<sup>2</sup> (60-ft<sup>2</sup>/gal).

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

**Incline:** 1

**Existing Roof System:** — Class A, B or C insulated (any thickness wood fiber, perlite, polyisocyanurate, urethane or polystyrene with a slip sheet).

**Polyester Fleece:** — One ply 2.5-oz/yd.<sup>2</sup> (maximum) polyester fleece.

**Membrane:** — "IB PVC" mechanically fastened.

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

**Incline:** 1

**Existing Roof System:** — Class A, B or C built-up system, smooth surface, cap sheet or gravel surfaced, gravel to be maintained at 400-lbs/100-ft.<sup>2</sup>, to retain existing Classification.

**Insulation:** — (Optional) Owens Corning Specialty Products "Foamular," 1-in. max.

**Slip Sheet:** — 1 ply "IB Fire Sheet 10" or Atlas Roofing "FR10".

**Membrane:** — "IB PVC" mechanically fastened.

Last Updated on 2017-08-16

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