

---

## TGFU.R15546 Roofing Systems

---

### Roofing Systems

[See General Information for Roofing Systems](#)

#### IB ROOF SYSTEMS

R15546

36250 E ENTERPRISE RD  
CRESWELL, OR 97426 USA

#### SINGLE PLY MEMBRANE SYSTEMS

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

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

##### Class A - Ballast

1. Deck: C-15/32

Incline: 2

**Insulation:** — "Insulfoam EPS" or "R-TECH", any thickness.

**Slip Sheet:** — Insulfoam "Secure-Ply"

**Membrane:** — "IB" (CPA)

**Surfacing:** — River bottom stone (3/4 to 1-1/2 in. diam) at 1000 lbs/sq.

##### Class A - Fully Adhered

1. Deck: NC

Incline: 2

**Insulation:** — Wood Fiber Industries "Structodeck", Apache Products "Apache Pyrox" or "Apache Tapered Pyrox", Atlas Roofing "ACFoam II" Firestone Building Products "Iso 95+GL" or "Iso 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness, mechanically attached or hot mopped.

**Membrane:** — "IB" (CPA), adhered with Ashland Chemical "Pliobond 7500" bonding adhesive, at 1 gal/160 sq ft. The overlapping membrane joints are heat sealed.

2. Deck: NC

Incline: 2

**Insulation:** — Johns Manville "ENRGY 2", Atlas Roofing "ACFoam II", "ACFoam III", Firestone Building Products "ISO 95+GL", any thickness.  
**Membrane:** — "IB" (CPA), adhered with "IB Contact Adhesive" at 60 sq/ft/gal.

**3. Deck: NC Incline: 2**

**Insulation:** — "Tuff Roof" or "Insultaper" (EPS/perlite, perlite side up or EPS/wood fiber, wood fiber side up) any thickness.

**Barrier Board (Optional):** — 1/4 in. (min) G-P Gypsum Dens-Deck Prime™

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

**Class A - Mechanically Fastened**

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

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

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Atlas Roofing "FR-10" or "IB Fire Sheet - 1" .

**Membrane:** — "IB" (CPA).

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

**Gypsum Board:** — 5/8 in. min fastened to deck. Joints in plywood and gypsum board are staggered a min of 6 in.

**Membrane:** — "IB" (CPA).

**4. Deck: NC Incline: 2**

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

**Membrane:** — "IB" (CPA).

**5. Deck: NC Incline: 2**

**Insulation:** — Dow Chemical "Styrofoam" or "Grayboard", any thickness.

**Slip Sheet:** — Atlas Roofing "FR-50" or Elk "IB Fire Sheet - 1" .

**Membrane:** — "IB" (CPA).

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

**Insulation:** — "Dow Chemical Styrofoam" or "Grayboard", 3/4 in. min.

**Barrier Board:** — Min 5/8 in. gypsum.

**Membrane:** — "IB" (CPA).

**7. Deck: NC Incline: 2**

**Slip Sheet (Optional):** — Atlas Roofing "FR-10 " or Elk "IB Fire Sheet - 1" .

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

**Membrane:** — "IB" (CPA).

**8. Deck: NC Incline: 2**

**Insulation:** — Wood fiber, any thickness.

**Membrane:** — "IB" (CPA).

**9. Deck: NC Incline: 1**

**Insulation:** — Any UL Classified EPS.

- Slip Sheet:** — Atlas Roofing "FR-10" or Elk "IB Fire Sheet - 1" .  
**Membrane:** — "IB" (CPA).
10. **Deck:** NC **Incline:** 3  
**Barrier Board:** — 5/8 in. gypsum, mechanically fastened.  
**Insulation (Optional):** — Atlas Roofing "ACFoam II", any thickness.  
**Membrane:** — "IB" (CPA).
11. **Deck:** NC **Incline:** 3  
**Insulation:** — Apache Products "Pyrox" or "Tapered Pyrox", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness.  
**Membrane:** — "IB" (CPA).
12. **Deck:** C-15/32 **Incline:** 3  
**Barrier Board:** — 5/8 in. (min) gypsum board with all joints staggered a min of 6 in. from the plywood joints.  
**Insulation:** — Apache Products "Pyrox", "White Line" or "Tapered Pyrox", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", or "Thermarroof Plus", any thickness.  
**Membrane:** — "IB" (CPA).
13. **Deck:** C-15/32 **Incline:** 2  
**Barrier Board:** — 1/2 in. (min) gypsum board with all joints staggered a min of 6 in. from the plywood joints.  
**Insulation:** — Apache Products "Pyrox", "White Line" or "Tapered Pyrox", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness.  
**Membrane:** — "IB" (CPA).
14. **Deck:** C-15/32 **Incline:** Unlimited  
**Insulation (Optional):** — Polyisocyanurate, any thickness.  
**Barrier Board:** — 1/2 in. gypsum board with all joints staggered a min of 6 in. from the plywood joints.  
**Membrane:** — "IB" (CPA).
15. **Deck:** C-15/32 **Incline:** Unlimited  
**Barrier Board:** — 1/4 in. (min) G-P Gypsum Dens-Deck® with all joints staggered a min of 6 in. from the plywood joints.  
**Membrane:** — "IB" (CPA).
16. **Deck:** C-15/32 **Incline:** 1/2  
**Slip Sheet:** — Two layers Atlas Roofing "FR-50".  
**Membrane:** — "IB" (CPA).
17. **Deck:** NC **Incline:** 1  
**Insulation:** — Owens Corning Specialty Products "Foamular", any thickness.  
**Slip Sheet:** — Atlas Roofing. "FR-10" or "FR-11" or Elk "IB Fire Sheet - 1" .  
**Membrane:** — "IB" (CPA).
18. **Deck:** C-15/32 **Incline:** 1/2  
**Slip Sheet:** — One layer Atlas Roofing "FR-10", "FR-11" or "FR-50".

**Insulation:** — Atlas Roofing "ACFoam III", 1.5 in. min thickness with all joints staggered 6 in. min. from plywood joints.

**Membrane:** — "IB" (CPA).

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

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

**Barrier Board:** — Min 1/2 in gypsum or 1/4 in. G-P Gypsum Dens-Deck®.

**Membrane:** — "IB" (CPA).

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

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

**Barrier Board:** — G-P Gypsum 1/4 in. Dens Deck® or 1/2 in. gypsum board with all joints staggered 6 in. (min) from the plywood joints.

**Membrane:** — "IB" (CPA).

21. **Deck:** NC                              **Incline:** 3

**Insulation:** —

1. Apache "PYROX"
2. Firestone Building Products "ISO 95+GL"
3. Johns Manville "ENRGY 2"
4. Rmax "Multi-Max FA"
5. Atlas Roofing "ACFoam II"
6. Atlas Roofing "ACFoam III"
7. Johns Manville "ISO 1"

**Membrane:** — "IB" (CPA).

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

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

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

1. Apache "PYROX"
2. Firestone Building Products "ISO 95+GL"
3. Johns Manville "ENRGY-2"
4. Rmax "Multi-Max FA"
5. Atlas Roofing "ACFoam II"

6. Atlas Roofing "ACFoam III"

7. Johns Manville "ISO 1"

**Membrane:** — "IB" (CPA).

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

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

**Membrane:** — "IB" (CPA).

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

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

**Insulation:** — "ACFoam III", 1.5 in. min thickness with all joints staggered 6 in. min from the plywood joints.

**Membrane:** — "IB" (CPA).

25. Deleted.

26. Deleted.

27. Deleted.

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

**Insulation:** — Celotex "Hy-Therm AP", any thickness.

**Membrane:** — "IB" (CPA).

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

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

**Insulation:** — Celotex "Hy-Therm AP", 1.5 in. min with all joints staggered 6 in. (min) from the plywood joints.

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Two layers Elk "VersaShield Underlayment" or "IB Fire Sheet - 2"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Three layers "IB Fire Sheet - 1" .

**Insulation:** — Apache Products "Pyrox" or "Tapered Pyrox", Celotex "Hy-Therm AP" or "Hy-Tec B Blackore", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness.

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Two layers Elk "VersaShield Underlayment" or "IB Fire Sheet - 2"

**Insulation:** — Apache Products "Pyrox", "White Line" or "Tapered Pyrox", Celotex "Hy-Therm AP", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness.

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — One or more layers Elk "IB Fire Sheet - 1" , mechanically fastened.

**Insulation:** — Rmax "ULTRAMAX", 1 in. thick min.

**Membrane:** — "IB" (CPA).

34. **Deck:** C-15/32 **Incline:** 3/4

**Slip Sheet:** — Two layers Elk "IB Fire Sheet - 1" .

**Insulation:** — Apache Products "Pyrox", "White Line" or "Tapered Pyrox", Celotex "Hy-Therm AP", Firestone Building Products "ISO 95+GL" or "ISO 95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max", any thickness.

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Three layers Elk "IB Fire Sheet - 1" .

**Insulation:** —

1. Apache "PYROX"
2. Firestone Building Products "ISO 95+GL"
3. Johns Manville "ENRGY 2"
4. Rmax "Multi-Max FA"
5. Atlas Roofing "ACFoam II"
6. Atlas Roofing "ACFoam III"
7. Johns Manville "ISO 1"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — : Two layers Elk "VersaShield Underlayment" or "IB Fire Sheet - 2" .

**Insulation (Optional):** —

1. Apache "PYROX"
2. Firestone Building Products "ISO 95+GL"
3. Johns Manville "ENRGY 2"
4. Rmax "Multi-Max FA"
5. Atlas Roofing "ACFoam II"
6. Atlas Roofing "ACFoam III"

7. Johns Manville "ISO 1"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — One or more layers "IB Fire Sheet - 1" , mechanically fastened.

**Insulation:** — Rmax "ULTRAMAX", 1 in. thick min.

**Membrane:** — "IB" (CPA).

38. **Deck:** C-15/32                      **Incline:** 3/4

**Slip Sheet:** — Two layers "IB Fire Sheet - 1" .

**Insulation:** —

1. Apache "PYROX"

2. Firestone Building Products "ISO 95+GL"

3. Johns Manville "ENRGY 2"

4. Rmax "Multi-Max FA"

5. Atlas Roofing "ACFoam II"

6. Atlas Roofing "ACFoam III"

7. Johns Manville "ISO 1"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Three layers "IB Fire Sheet - 1" .

**Insulation:** — Celotex "Hy-Therm AP", any thickness.

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Two layers Elk "VersaShield Underlayment" or "IB Fire Sheet - 2"

**Insulation:** — Celotex "Hy-Therm AP", any thickness.

**Membrane:** — "IB" (CPA).

41. **Deck:** NC                              **Incline:** 2

**Insulation:** — "Insulfoam EPS", "Insulbarrier", "R-TECH", any thickness.

**Slip Sheet:** — Insulfoam "Secure-Ply"

**Membrane:** — "IB" (CPA).

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

**Slip Sheet:** — Three layers "IB Fire Sheet - 1".

**Membrane:** — "IB" (CPA).

43. **Deck:** C-15/32                      **Incline:** 3/4

**Slip Sheet:** — Two layers "IB Fire Sheet -1".



13. **Deck:** C-15/32                      **Incline:** 1-1/2  
**Slip Sheet:** — One layer Elk "VersaShield Underlayment" or "IB Fire Sheet -2" .  
**Membrane:** — "IB" (CPA).
14. **Deck:** C-15/32                      **Incline:** 1-1/2  
**Slip Sheet:** — One layer Elk "VersaShield Underlayment" or "IB Fire Sheet - 2" .  
**Insulation:** — Apache Products "Pyrox", "White Line" or "Tapered Pyrox",  
Celotex "Hy-Therm AP", Firestone Building Products "ISO 95+GL" or "ISO  
95+GW", Johns Manville "ENRGY 2A", Rmax "Multi-Max" or "Thermarroof  
Plus", any thickness.  
**Membrane:** — "IB" (CPA).
15. **Deck:** C-15/32                      **Incline:** 1-1/2  
**Slip Sheet:** — One layer Elk "VersaShield Underlayment" or "IB Fire Sheet - 2" .  
**Insulation:** —
1. Apache "PYROX"
  2. Firestone Building Products "ISO 95+GL"
  3. Johns Manville "ENRGY 2"
  4. Rmax "Multi-Max FA"
  5. Atlas Roofing "ACFoam II"
  6. Atlas Roofing "ACFoam III"
  7. Johns Manville "ISO 1"
- Membrane:** — "IB" (CPA).
16. **Deck:** C-15/32                      **Incline:** 1-1/2  
**Slip Sheet:** — One layer Elk "VersaShield Underlayment" or "IB Fire Sheet - 2" .  
**Insulation:** — Celotex "Hy-Therm AP", any thickness.  
**Membrane:** — "IB" (CPA).
17. **Deck:** C-15/32                      **Incline:** 1/2  
**Slip Sheet:** — One layer "IB Fire Sheet -1".  
**Membrane:** — "IB" (CPA).

## 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:** — "R-TECH" Type "I", "VIII", "II", "IX" or "FanFold" 1 in. max 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:** — "R-TECH" Type "I", "VIII", "II", "IX" or "FanFold" any thickness.  
**Membrane:** — "IB" (CPA).  
**Surfacing:** — River bottom stone (3/4 in. to 1-1/2 in. diam) at 900 lbs per sq.  
**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/sq.  
**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:** — 1/2 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 Elk "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. diam) at 900 lbs per sq.
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. diam) at 900 lbs per sq.

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

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

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

**Slip Sheet:** — One layer "IB Fire Sheet-1", mechanically fastened.

**Roof Covering:** — "IB" (CPA).

Note 1: This system maintains the fire rating of the roof being covered.

**Last Updated** on 2005-02-15

---

This page and all contents are Copyright © 2005 by Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2005 Underwriters Laboratories Inc.®"