## APPENDIX I – FIRE CLASSIFICATION

See attached ICC-ES Report ESR-2831 *Table 2 Adhered Roof Covering Systems* and *Table 3 Mechanically Fastened Roof Covering Systems*

**TABLE 2—FIRE CLASSIFICATION ASSEMBLIES—ADHERED ROOF COVERING SYSTEMS**



| SYSTEM NO. | ROOF CLASS | DECK[2] | MAX. ROOF SLOPE | INSULATION[1] | BARRIER OR COVER BD./ BASE/PLY SHEET | MEMBRANE |
|---|---|---|---|---|---|---|
| 1 | A | Noncombustible | 1/4:12 | (Optional) UL-classified polyisocyanurate, any thickness | 1/2-inch thick "ISOGARD HD" | UltraPly TPO |
| 2 | A | Noncombustible | 1/4:12 | (Optional) Min. 1-inch to max. 4-inch-thick Firestone "ISO 95 + GL" | --- | UltraPly TPO |
| 3 | A | Combustible | 2 1/2:12 | 1 1/2-inch-thick Firestone "ISO 95 + GL" | 1/2-inch thick "DensDeck" | UltraPly TPO |
| 4 | A | Combustible | 1/4:12 | (Optional) Min. 1-inch to max. 4-inch-thick Firestone "ISO 95 + GL" | Min. 1-inch thick "ISOGARD HD" | UltraPly TPO |
| 5 | A | Combustible | 1:12 | (Optional) UL-classified foam plastic insulation, any thickness | Min. 1/4-inch thick "DensDeck", "DensDeck Prime" or "DensDeck DuraGuard" | UltraPly TPO XR |
| 6 | B | Combustible | 1/4:12 | (Optional) Min. 1-inch to max. 4-inch-thick Firestone "ISO 95 + GL" | 1/2-inch thick "ISOGARD HD" | UltraPly TPO |
| 7 | B | Noncombustible | 1:12 | UL-classified foam plastic insulation, any thickness | Min. 7/16-inch thick APA-rated OSB | UltraPly TPO XR |
| 8 | B | Noncombustible | 1:12 | 4-inch-thick Firestone "ISO 95 + GL" | Two plies, Type G2 "MB Base Sheet" | UltraPly TPO XR |
| 9 | B | Noncombustible | 1:12 | 4-inch-thick Firestone "ISO 95 + GL" | Two plies, Type G2 "MB Base Sheet", 1 ply "APP 170", 1 ply "APP 180FR" | UltraPly TPO XR |
| 10 | Existing Class A, B or C system to retain existing classification. | Combustible | 1/2:12 | Existing Class A, B or C uninsulated BUR system (mineral surfaced cap sheet) | --- | UltraPly TPO XR |

For **SI:** 1 inch = 25.4 mm; 1 ft = 0.305 m; 1 psf = 47.88 Pa.

[1]All foam plastic insulation must be UL classified and limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.

[2]Wood deck must be minimum 15/32-inch-thick (11.9 mm) plywood. Steel deck must be minimum No. 22 gage galvanized steel [0.030 inch (0.76 mm)]. Concrete must have a minimum compressive strength ($f_c$) of 2500 psi.

TABLE 3—FIRE CLASSIFICATION ASSEMBLIES—MECHANICALLY FASTENED ROOF COVERING SYSTEMS



| SYSTEM NO. | ROOF CLASS | DECK[2] | MAX. ROOF SLOPE | SLIP SHEET | INSULATION[1] | BARRIER OR COVER BD./ BASE/PLY SHEET | MEMBRANE |
|---|---|---|---|---|---|---|---|
| 1 | A | Combustible | 5:12 | --- | 1.5-inch-thick Firestone "ISO 95 + GL" | Min. 1/4-inch thick "DensDeck" | UltraPly TPO |
| 2 | A | Noncombustible | 1:12 | --- | 1.5-inch-thick ISO 95+GL | (Optional) 1/2-inch-thick ISOGARD HD | UltraPly TPO |
| 3 | A | Noncombustible | 3/4:12 | --- | (Optional) UL-classified foam plastic insulation, any thickness. | 1/2-inch thick "ISOGARD HD" | UltraPly TPO |
| 4 | A | Combustible | 1:12 | Two layers of GAF "VersaShield® Fire-Resistant Roof Deck Protection" or GAF "VersaShield® Solo™ Fire-Resistant Slip Sheet | --- | --- | UltraPly TPO |
| 5 | B | Combustible | 1/2:12 | --- | (Optional) Min. 1-inch to max. 4-inch-thick Firestone "ISO 95 + GL" | 1/2-inch thick "ISOGARD HD" | UltraPly TPO |
| 6 | B | Combustible | 1:12 | One layer of GAF "VersaShield® Fire-Resistant Roof Deck Protection" or GAF "VersaShield® Solo™ Fire-Resistant Slip Sheet | --- | --- | UltraPly TPO |
| 7 | B | Noncombustible | 1:12 | --- | 4-inch-thick Firestone "ISO 95 + GL" | One ply of MB Base Sheet, 1 ply of Type G3 | UltraPly TPO XR |

For **SI:** 1 inch = 25.4 mm; 1 ft = 0.305 m; 1 psf = 47.88 Pa.

[1]All foam plastic insulation must be UL classified and limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.

[2]Wood deck must be minimum 15/32-inch-thick (11.9 mm) plywood. Steel deck must be minimum No. 22 gage galvanized steel [0.030 inch (0.76 mm)]. Concrete must have a minimum compressive strength ($f_c$) of 2500 psi.