



ICC-ES Listing Report ESL-1477

Reissued October 2024

This listing is subject to renewal October 2025.

CSI: DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 54 19—Polyvinyl-Chloride Roofing

Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Product: IB PVC ROOFING MEMBRANES

Listee: IB ROOF SYSTEMS

Evaluation: IB Membrane Roofing Systems consist of a single-ply polyvinyl chloride (PVC) membrane, insulation (when specified), barrier, board or coverboard (when specified), slip sheet (when specified), flashing, and mechanical fasteners or adhesives installed on combustible or noncombustible decks. The membrane roofing system consists of the following components:

- **IB PVC Single Ply Membrane:** This is a polyester fabric-reinforced PVC membrane. The membrane complies with ASTM D4434, Type III, and is manufactured in nominally 50-, 60- and 80-mil (1.27, 1.52 and 2.03 mm) thicknesses.
- **IB PVC Single Ply Fleeceback Membrane:** This is a polyester fabric-reinforced PVC membrane with a nonwoven polyester fleece backing. The membrane complies with ASTM D4434, Type III, and is manufactured in nominally 50-, 60- and 80-mil (1.27, 1.52 and 2.03 mm) thicknesses.
- **IB PVC:** This is a polyester fabric-reinforced PVC membrane. The membrane complies with ASTM D4434 Type III, and is manufactured in nominally 50-, 60- and 80- mil (1.27, 1.52 and 2.03 mm) thicknesses.
- **IB PVC Fleeceback:** This is a polyester fabric-reinforced PVC membrane with a nonwoven polyester fleece backing. The membrane complies with ASTM D4434, Type III, and is manufactured in nominally 50-, 60- and 80- (1.27, 1.52 and 2.03 mm) thicknesses.

The membrane roofing system was evaluated when tested to the following standard:

- ASTM E108 (-17 and -16), Standard Test Methods for Fire Tests of Roof Coverings, ASTM International.

Findings: Roof covering systems described in Tables 1 and 2 are classified as Class A or B roof covering systems. Class A, B or C roof covering systems may be installed over existing roof covering systems under the following conditions, provided the resulting classification is the lower of the new and existing roofing classification: New uninsulated systems installed only over existing uninsulated assemblies; or New insulated systems installed over existing uninsulated systems only. The roof covering systems are based on testing in accordance with ASTM E108, as referenced in the applicable sections of the following code editions:

- 2021 and 2018 *International Building Code*® (IBC)
Applicable Section 1505.1
- 2021 and 2018 *International Residential Code*® (IRC)
Applicable Section: R902.1

Identification:

1. IB PVC ROOFING MEMBRANES product labeling shall include the name of the report holder or listee, and the ICC-ES mark of conformity. The listing (ICC-ES report number ESL-1477) and/or evaluation report number (ICC-ES ESR-2852) may be used in lieu of the mark of conformity.

Each roll of roofing membrane has a label bearing the IB Roof Systems name and address, the product name, and the listing report number (ESL-1477) and/or the evaluation report number (ESR-2852).

Fasteners are identified by the company name and by the size.

Foam plastic insulation must be identified with the manufacturer's name, the surface burning characteristics, and the label of an approved testing and listing agency.

2. The report holder's contact information is the following:

IB ROOF SYSTEMS
506 EAST DALLAS ROAD, SUITE 300
GRAPEVINE, TEXAS 76051
(469) 520-0678
www.IBRoof.com

Installation: Installation of the IB PVC roofing membranes must comply with the applicable code, the manufacturer's published installation instructions and ESR-2852.

Conditions of listing:

1. Additional attributes and their applications can be found in the ICC-ES evaluation report ESR-2852
2. The listing report addresses only conformance with the standards and code sections noted above.
3. Approval of the product's use is the sole responsibility of the local code official.
4. The listing applies only to the materials tested and as submitted for review by ICC-ES.
5. The membranes are manufactured under a quality control program with inspections by ICC-ES.

TABLE 1—FIRE CLASSIFICATION ASSEMBLIES—ADHERED ROOFING SYSTEMS

SYSTEM NO.	ROOF CLASS	SUBSTRATE ²	MAX. ROOF SLOPE	INSULATION ^{1,3}	BARRIER OR COVER BOARD ⁴	MEMBRANE ⁴	
						TYPE	ADHESIVE ^{4,5}
1	A	Noncombustible	1:12	Min. 1-inch-thick to max. 4-inch-thick, Firestone Bldg. Products "ISO 95+GL" or Johns Manville "ENRGY 3"	---	IB PVC Single-Ply	IB Water Borne Adhesive
2	A	Noncombustible	1 1/2:12	Min. 1-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II", Atlas Roofing "ACFoam-II" or "ACFoam-III"	---	IB PVC Single-Ply	IB Water Borne Adhesive
3	A	Noncombustible	1:12	Min. 2-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II", Atlas Roofing "ACFoam-II", Johns Manville "ENRGY 3", Rmax "Multi-Max FA-3" or Dow Chemical Co. "HY-THERM AP", mechanically fastened to deck	---	IB PVC Single-Ply or IB PVC Single-Ply Fleeceback	IB Water Borne Adhesive or IB Vertibond Adhesive
4	A	Noncombustible	1:12	Min. 2-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II", Atlas Roofing "ACFoam-II", Johns Manville "ENRGY 3", Rmax "Multi-Max FA-3" or Dow Chemical Co. "HY-THERM AP",	1/4-inch-thick Georgia Pacific "DensDeck", mechanically fastened through insulation to deck	IB PVC Single-Ply or IB PVC Single-Ply Fleeceback	IB Water Borne Adhesive or IB Vertibond Adhesive
5	A	Noncombustible	1:12	---	---	IB PVC Single-Ply or IB PVC Single-Ply Fleeceback	IB Water Borne Adhesive or IB Vertibond Adhesive
6	A	Combustible	Unlimited	Min. 1-inch-thick to max. 4-inch-thick, Atlas Roofing "ACFoam-II", or IB Roof "IB Energy Board II"	1/4-inch-thick Georgia Pacific "DensDeck" or USG "SECUROCK Gypsum-Fiber Roof Board", mechanically fastened through insulation to deck	IB PVC Fleeceback	ICP CR-20
7	A	Noncombustible	1:12	Min. 1-inch thick to max. 4-inch-thick, Atlas Roofing "ACFoam-II", or IB Roof "IB Energy Board II"	1/4-inch-thick Georgia Pacific "DensDeck" or USG "SECUROCK Gypsum-Fiber Roof Board", mechanically fastened through insulation to deck	IB PVC Fleeceback	ICP CR-20

¹All foam plastic insulation must be UL-classified foam plastic for roofing systems. Foam plastic must be separated from the interior of the building by an approved thermal barrier in accordance with IBC Section 2603.4.1.5 or IRC Section R316.4, as applicable. Foam plastic insulation, when used, must bear the label of an approved testing and listing agency indicating that the foam plastic has a flame-spread index of not more than 75 when tested at the maximum thickness intended for use in accordance with ASTM E84 or UL 723.

²Steel 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.

³Polyisocyanurate insulation must comply with ASTM C1289. Expanded polystyrene (EPS) and extruded polystyrene (XPS) insulation must comply with ASTM C578.

⁴Barrier or cover boards, membranes and adhesives must be UL-classified for roofing systems.

⁵IB Water Borne Adhesive to be applied at a rate of 100-175 ft² per gallon (300–525 ft² per 3-gallon pail).

⁶IB Vertibond Adhesive to be applied at a rate of 60 ft² per gallon.

TABLE 2—FIRE CLASSIFICATION ASSEMBLIES—MECHANICALLY FASTENED ROOFING SYSTEMS

SYSTEM NO.	ROOF CLASS	SUBSTRATE ²	MAX. ROOF SLOPE	BARRIER BOARD/ INSULATION ^{1,3}	SLIP SHEET ⁴	MEMBRANE TYPE ⁴
1	A	Noncombustible	3:12	Min. 1-inch-thick to max. 4-inch-thick, Any UL-classified polyisocyanurate insulation, mechanically fastened to deck.	---	IB PVC Single-Ply
2	A	Noncombustible	2:12	Min. 1-inch-thick to max. 4-inch-thick, Johns Manville "ENRGY 3", Rmax "Multi-Max FA-3" or Firestone Bldg. Products" ISO 95+GL"	---	IB PVC Single-Ply
3	A	Noncombustible	2½:12	Min. 1-inch-thick to max. 4-inch thick, IB Roof "IB Energy Board II" "IB Energy Board III", Atlas Roofing "ACFoam-II" or "ACFoam-III"	---	IB PVC Single-Ply
4	A	Noncombustible	2:12	Min. 2-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II" "IB Energy Board III", Atlas Roofing "ACFoam-II", Rmax "Multi-Max FA-3" or Dow Chemical Co. "HY-THERM AP", mechanically fastened per FM preliminary fastening requirements	---	IB PVC Single-Ply
5	B	Noncombustible	2:12	Min. 2-inch-thick to max. 4-inch-thick, Johns Manville "ENRGY 3", mechanically fastened per FM preliminary fastening requirements ⁵	---	IB PVC Single-Ply
6	A	Noncombustible	2:12	Min. 1-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II" "IB Energy Board III", Atlas Roofing "ACFoam-II" or Johns Manville "ENRGY 3", or min. 1.3-inch-thick to max. 4-inch-thick, IB Roof "IB Energy Board II" "IB Energy Board III", Atlas Roofing "ACFoam-III", mechanically fastened per FM preliminary fastening requirements ⁵	---	IB PVC Single-Ply
7	A	Combustible	Unlimited	---	Four layers of "IB Fire Sheet FR-10"	IB PVC Single-Ply or IB PVC
8	A	Noncombustible	2:12	---	Three layers of IB Fire Sheet FR-10"	IB PVC Single Ply or IB PVC
9	A	Combustible	¾:12	---	Two layers of IB Fire Sheet FR-10	IP PVC Single Ply
10	A	Combustible	Unlimited	¼-inch-thick Georgia Pacific "DensDeck" or USG "SECUROCK Gypsum-Fiber Roof Board"	---	IB PVC Single Ply
11	A	Combustible	2:12	(Optional) Min. 1-inch-thick to max. 4-inch-thick, Atlas Roofing "ACFoam-II", or IB Roof "IB Energy Board II"	Three layers of IB Fire Sheet FR-10	IB PVC Single Ply or IB PVC
12	A	Combustible	3:12	(Optional) Min. 1-inch-thick to max. 4-inch-thick, Atlas Roofing "ACFoam-II", or IB Roof "IB Energy Board II"	Three layers of IB Fire Sheet FR-10	IB PVC Single Ply or IB PVC

¹All foam plastic insulation must be UL-classified foam plastic for roofing systems. Foam plastic must be separated from the interior of the building by an approved thermal barrier in accordance with IBC Section 2603.4.1.5 or IRC Section R316.4, as applicable. Foam plastic insulation, when used, must bear the label of an approved testing and listing agency indicating that the foam plastic has a flame-spread index of not more than 75 when tested at the maximum thickness intended for use in accordance with ASTM E84 or UL 723.

²Wood deck must be minimum 1½-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.

³Polyisocyanurate insulation must comply with ASTM C1289. Expanded polystyrene (EPS) and extruded polystyrene (XPS) insulation must comply with ASTM C578.

⁴Slip sheets, membranes and adhesives must be UL-classified for roofing systems.

⁵FM preliminary fastening requirements to consist of IB SD #12 Insulation fastener (for steel substrate) or IB CD-10 Roofing fastener (for concrete substrate) with IB 3-inch Round Metal Insulation Plate at 1 fastener per 8 ft².