

# TGFY7.R10128 - Roofing Systems, Membrane, Dynamic Wind Uplift Resistance Certified for Canada

## Roofing Systems, Membrane, Dynamic Wind Uplift Resistance Certified for Canada

**Duro-Last Inc**  
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Saginaw, MI 48601 United States

R10128

### SINGLE-PLY MEMBRANE SYSTEMS

Example text describing the following items:

#### 1. Uplift Resistance — 88 psf

**Deck** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\*** — United States Gypsum Co. Securock® Gypsum-Fiber Roof Board (Type FRX-G), 5/8 in. thick, adhered with Royal Adhesives & Sealants Inc. "Millennium One Step™ Foamable Adhesive", applied in continuous ribbons atop deck flanges, max 6 in. OC.

**Primer** — Soprema Inc. "Elastocol Stick", applied at a rate of 0.5 gal/sq.

**Vapor Barrier** — "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G" or "Duro-Guard ISO II-H". Top layer shall be min. 1 in. thick and adhered with "Duro-Grip CR-20, The Dow Chemical Co. "Insta-Stik", OMG Inc. "Olybond 500" or Royal Adhesives & Sealants Inc. "Millennium One Step™ Foamable Adhesive", applied in continuous ribbons, max 12 in. OC.

**Coverboard\*** — Georgia-Pacific Gypsum LLC "DensDeck Prime® Roofboard", min. 1/4 in. thick, adhered with "Duro-Grip CR-20", The Dow Chemical Co. "Insta-Stik", OMG Inc. "Olybond 500" or Royal Adhesives & Sealants Inc. "Millennium One Step™ Foamable Adhesive", applied in continuous ribbons, max 12 in. OC.

**Membrane\*** — "Duro-Fleece" or "Duro-Fleece Plus", min. 50 mil, adhered with "Duro-Grip CR-20", splatter-applied at 5 lbs/sq

#### 2. Uplift Resistance — 88 psf

**Deck** — Structural concrete, min. 2,500 psi.

**Primer** — Soprema Inc. "Elastocol Stick", applied at a rate of 0.5 gal/sq.

**Vapor Barrier** — "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G" or "Duro-Guard ISO II-H". Top layer shall be min. 1 in. thick and adhered with "Duro-Grip CR-20, The Dow Chemical Co. "Insta-Stik", OMG Inc. "Olybond 500" or Royal Adhesives & Sealants Inc. "Millennium One Step™ Foamable Adhesive", applied in continuous ribbons, max 12 in. OC.

**Coverboard\*** — Georgia-Pacific Gypsum LLC "DensDeck Prime® Roofboard", min. 1/4 in. thick, adhered with "Duro-Grip CR-20", The Dow Chemical Co. "Insta-Stik", OMG Inc. "Olybond 500" or Royal Adhesives & Sealants Inc. "Millennium One Step™ Foamable Adhesive", applied in continuous ribbons, max 12 in. OC.

**Membrane\*** — "Duro-Fleece" or "Duro-Fleece Plus", min. 50 mil, adhered with "Duro-Grip CR-20", splatter-applied at 5 lbs/sq.

#### 3. Uplift Resistance — 64 psf

**Deck** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\* (Optional)** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Insulation\*** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; top layer shall be min. 1.5 in. thick. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 5 fasteners per 4 x 8 ft. board (1 fastener per max 6.4 ft²). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 614 lbf.

**Membrane\*:** — "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 480 lbf.

#### 4. Uplift Resistance — 85 psf

**Deck:** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\* (Optional)** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Vapor Barrier:** — "Duro-Blue" (not UL Certified), loose-laid with joints taped.

**Insulation\*:** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; top layer shall be min. 1.5 in. thick. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 678 lbf.

**Membrane\*:** — "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 640 lbf.

#### 5. Uplift Resistance — 85 psf

**Deck:** — Structural concrete, min. 2,500 psi.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped; or "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*:** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; top layer shall be min. 1.5 in. thick. Top insulation layer to be mechanically attached with Duro-Last Concrete Screws and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 1 in. fastener penetration into deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 678 lbf.

**Membrane\*:** — "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last Concrete Screws and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 1 in. fastener penetration into deck.

**Maintenance and Repair Applications (Recover):** — — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 640 lbf.

#### 6. Uplift Resistance — 75 psf

**Deck:** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\* (Optional)** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped; or "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*:** — Two or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; each layer shall be min. 1 in. thick with joints staggered. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 594 lbf.

**Membrane\*:** — "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a

minimum of 560 lbf.

**7. Uplift Resistance — 43 psf**

**Deck:** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\*** — Georgia-Pacific Gypsum LLC "DensDeck Prime® Roofboard", min. 1/4 in. thick, loose-laid, adhered or mechanically attached.

**Vapor Barrier:** — "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*:** — "Duro-Guard EPS Type II" or "Duro-Guard EPS FGF", min. 0.5 in. thick; can be optionally over one or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A", "Duro-Guard ISO III-H", "Duro-Guard EPS Type II-C" or "Duro-Guard EPS FGF", loose laid. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 339 lbf.

**Membrane\*:** — Any of the following:

- "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 320 lbf.

- "Duro-Tuff", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 6 in. wide side laps, spaced 54 in. OC. Side laps to be sealed with 1.5 in wide heat weld. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 288 lbf.

**8. Uplift Resistance — 53 psf**

**Deck:** — Minimum 19/32 in. APA Rated plywood.

**Thermal Barrier\* (Optional) — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.**

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped; or "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*:** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; top layer shall be min. 1.5 in. thick. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 5 fasteners per 4 x 8 ft. board (1 fastener per max 6.4 ft<sup>2</sup>). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 512 lbf.

**Membrane\*:** — Any of the following:

- "Duro-Last" (PVC), min. 40 mil or "Duro-Last X", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 3 in. wide factory seamed fastening tabs, spaced 60 in. OC. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 400 lbf.

- "Duro-Tuff", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 6 in. wide side laps, spaced 54 in. OC. Side laps to be sealed with 1.5 in wide heat weld. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 360 lbf.

**9. Uplift Resistance** — 53 psf

**Deck:** — Steel, min. 22 MSG and min. yield strength 40 ksi.

**Thermal Barrier\* (Optional):** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped.

**Insulation\*:** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; either the top layer shall be min. 1.5 in. thick, or (if multiple layers are used) all layers can be min. 1 in. thick with joints staggered. Top insulation layer to be mechanically attached with Duro-Last HD Screws (#14) and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 424 lbf.

**Membrane\*:** — "Duro-Tuff", min. 50 mil, mechanically attached with Duro-Last EHD Screws (#15) and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 6 in. wide side laps, spaced 54 in. OC. Side laps to be sealed with 1.5 in wide heat weld. Minimum 3/4 in. fastener penetration through deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 360 lbf.

**10. Uplift Resistance** — 53 psf

**Deck:** — Structural concrete, min. 2,500 psi.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped; or "Duro-Last Vapor Barrier" (not UL Certified), self-adhered.

**Insulation\*:** — One or more layers of "Duro-Guard ISO II-A", "Duro-Guard ISO II-G", "Duro-Guard ISO II-H", "Duro-Guard ISO III-A" or "Duro-Guard ISO III-H"; either the top layer shall be min. 1.5 in. thick, or (if multiple layers are used) all layers can be min. 1 in. thick with joints staggered. Top insulation layer to be mechanically attached with Duro-Last Concrete Screws and Duro-Last 3-Inch Metal Plates, min. 6 fasteners per 4 x 8 ft. board (1 fastener per max 5.3 ft<sup>2</sup>). Minimum 1 in. fastener penetration into deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 424 lbf.

**Membrane\*:** — "Duro-Tuff", min. 50 mil, mechanically attached with Duro-Last Concrete Screws and Duro-Last Poly-Plates or Duro-Last Cleat Plates. Fasteners to be spaced 12 in. OC within 6 in. wide side laps, spaced 54 in. OC. Side laps to be sealed with 1.5 in wide heat weld. Minimum 1 in. fastener penetration into deck.

**Maintenance and Repair Applications (Recover):** — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 360 lbf.

## INDUCTION WELD SYSTEMS

**1. Uplift Resistance** — 47 psf

**Deck:** — Steel, minimum 22 MSG and minimum yield strength 40 ksi.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped.

**Thermal Barrier (Optional):** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Insulation:** — Two or more layers, minimum 1 inch thick each, "Duro-Guard ISO II-H", "Duro-Guard ISO II-G", "Duro-Guard ISO II-A", "Duro-Guard ISO III-H", or "Duro-Guard ISO III-A", mechanically fastened. Layered insulation board joints to be staggered a minimum of 6 inches.

**Insulation Fasteners:** — Top insulation layer to be mechanically attached with SFS intec Dekfast™ #15 fasteners and SFS intec 3-inch isoweld® metal plates in a 24-inch by 24-inch staggered grid pattern, resulting in 8 fasteners per 4 x 8 foot board (1 fastener per 4 ft.<sup>2</sup>). Minimum 3/4-inch fastener penetration into deck. Allowable alternate insulation fasteners include:

- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302-1 plates
- OMG Extra Heavy Duty Roofing Fastener (#15) with RHINO BOND Insulation Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302

- Trufast® #15 EHD Roofing Fasteners with Trufast® PVC IW Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond PVC IW Plates

**Maintenance and Repair Application (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 280 lbf.

**Membrane:** — "Duro-Last" (PVC), minimum 40 mil, or "Duro-Last X", min. 50 mil, "Duro-Last EV", minimum 50 mil, or "Duro-Tuff", minimum 50 mil, induction welded.

**2. Uplift Resistance** — 100 psf

**Deck:** — Steel, minimum 22 MSG and minimum yield strength 40 ksi.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped.

**Thermal Barrier (Optional):** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Insulation:** — Two or more layers, minimum 1-inch thick, "Duro-Guard ISO II-H", "Duro-Guard ISO II-G", "Duro-Guard ISO II-A", "Duro-Guard ISO III-H", or "Duro-Guard ISO III-A", mechanically fastened. Layered insulation board joints to be staggered a minimum 6 inches.

**Insulation Fasteners:** — Top insulation layer to be mechanically attached with SFS intec Dekfast™ #15 fasteners and SFS intec 3-in. isoweld® metal plates, attached in a 12-in. by 24-in. staggered grid pattern, resulting in 16 fasteners per 4 x 8 foot board (1 fastener per 2 ft.<sup>2</sup>). Minimum 3/4-in. fastener penetration into deck. Alternate insulation fasteners include:

- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302-1 plates
- OMG Extra Heavy Duty Roofing Fastener (#15) with RHINO BOND Insulation Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302
- Trufast® #15 EHD Roofing Fasteners with Trufast® PVC IW Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond PVC IW Plates

**Maintenance and Repair Application (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 300 lbf.

**Membrane:** — "Duro-Last" (PVC), minimum 40 mil, or "Duro-Last X", min. 50 mil, "Duro-Last EV", minimum 50 mil, or "Duro-Tuff", minimum 50 mil, induction welded.

**3. Uplift Resistance** — 59 psf

**Deck:** — Steel, minimum 22 MSG and minimum yield strength 40 ksi.

**Vapor Barrier (Optional):** — "Duro-Blue" (not UL Certified), loose-laid with joints taped.

**Thermal Barrier\* (Optional):** — Any UL Classified, any thickness, loose-laid, adhered or mechanically attached.

**Insulation:** — Two or more layers of "Duro-Guard ISO II-H", "Duro-Guard ISO II-G", "Duro-Guard ISO II-A", "Duro-Guard ISO III-H", or "Duro-Guard ISO III-A", mechanically fastened. Layered insulation board joints to be staggered a minimum of 6 inches.

**Insulation Fasteners:** — Top insulation layer to be mechanically attached with SFS intec Dekfast™ #15 fasteners and SFS intec 3-in. isoweld® metal plates, attached in a 24-inch by 24-inch staggered grid pattern, resulting in 8 fasteners per 4 x 8 foot board (1 fastener per 4 ft.<sup>2</sup>). Minimum 3/4-in. fastener penetration into deck. Alternate insulation fasteners include:

- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302-1 plates
- OMG Extra Heavy Duty Roofing Fastener (#15) with RHINO BOND Insulation Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond ISO WELD 1302
- Trufast® #15 EHD Roofing Fasteners with Trufast® PVC IW Plate
- Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Bond PVC IW Plates

**Maintenance and Repair Application (Recover):** — The field withdrawal resistance testing of insulation fasteners shall yield a minimum of 350 lbf.

**Membrane:** — "Duro-Last" (PVC), minimum 40 mil, or "Duro-Last X", min. 50 mil, "Duro-Last EV", minimum 50 mil, or "Duro-Tuff", minimum 50 mil, induction welded.

\* Indicates such products shall bear the cUL, ULC, or Enhanced Certification Mark

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