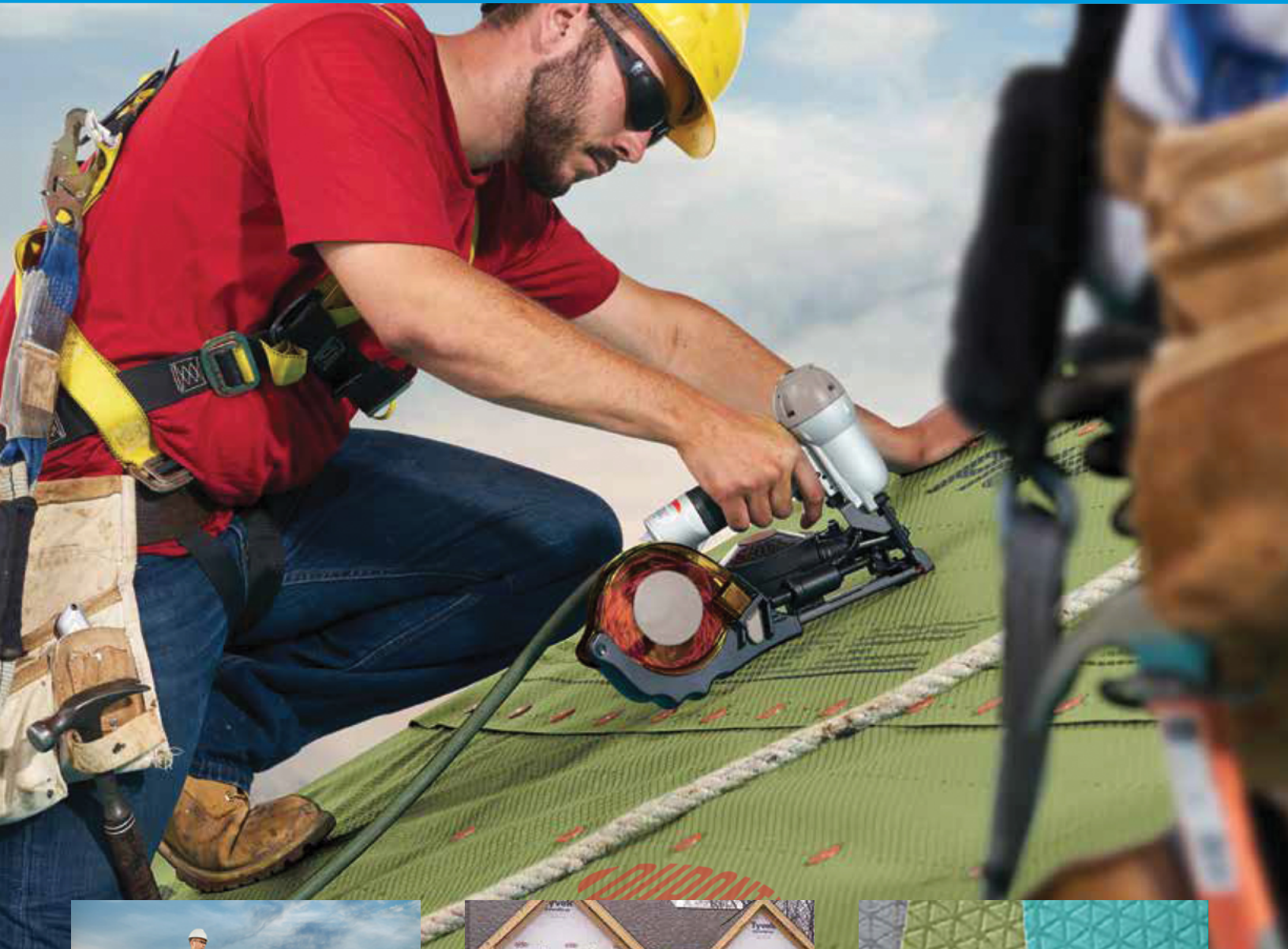


DuPont™ Tyvek® Protec™ 160

Roofing Underlayment



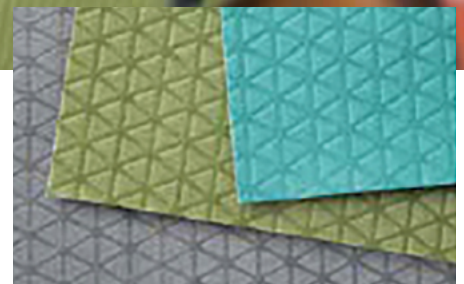
Industry-Leading Walkability

The unique embossed pattern allows for better traction and grip while walking on the roof.



Trusted Quality and Durability

Another innovative material breakthrough from DuPont™ Tyvek®, the leader in building envelope systems.





A Family of Underlayments

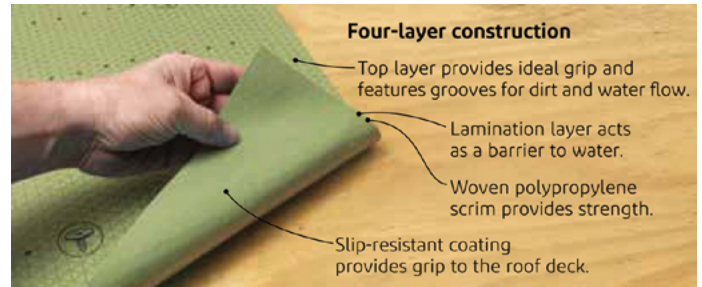
Our portfolio of roofing underlayments provides choices to better meet your needs.



Industry-leading walkability in dry, wet, hot, cold and dirty conditions.

DuPont™ Tyvek® Protec™ 160 is an engineered synthetic roofing underlayment with industry-leading walkability from DuPont, the trusted name in total building envelope solutions. Ideal for slopes 2:12 or higher under a variety of roofing materials in repair, re-roofing and new construction.

DuPont™ Tyvek® Protec™	160
Walkability	Best in Class
Roll Size (10 square)	48" x 250'
Rolls Per Pallet	36
Roll Weight	31 lbs
Warranty	40 years
UV Exposure	6 months
Roof Types	
Asphalt Shingle	✓
Cedar Shingle	✓
Metal	✓
Tile	✓
Slate	✓
Recyclable	
ASTM D226 Types I & II	✓
Intertek CCRR approved	✓
 Class A Per ASTM E108	✓
 Miami Dade County Approved	✓
HVHZ	✓
Florida Product Approved	✓



Easy to chalk
Accepts and holds chalk marks for more visible lines and a better finished product.



Wrinkle-free
Lays flat and stays flat for a more uniform shingled surface.



Protects the roof
Preserves the roof deck during installation and provides an effective secondary moisture barrier.



Supported by the DuPont™ Tyvek® Specialist Network
Specialists are available across the U.S. and Canada for additional knowledge and support.



DuPont™ Tyvek® Protec™ 160 – Product Information

FEATURES/BENEFITS

Description

DuPont™ Tyvek® Protec™ is a portfolio of engineered synthetic roofing underlayments featuring a unique embossed non-woven technology from the trusted name in total building envelope solutions. Tyvek® Protec™ 160's four-layer construction provides industry-leading walkability in dry, wet, hot, cold and dirty conditions, ideal for slopes 2:12 or higher under a variety of roofing materials in repair, re-roofing and new construction.

Ease of Use

- Top layer features grooves for dirt and water flow
- Lamination layer acts as a water barrier
- Woven polypropylene scrim provides added strength
- Slip-resistant coating provides grip to the roof deck

- Preserves the roof deck during installation and provides an effective secondary moisture barrier
- Lays flat and stays flat for a more uniform shingled surface
- Accepts and holds chalk marks for more visible lines and a better finished product

Available Sizes

Tyvek® Protec™ 160 is available in 10 square rolls: 48" x 250'/1.2m x 76.2m (92.9m²), and 2 square rolls: 48" x 50'/1.2m x 15.2m (18.5 m²)

Complete System

Tyvek® Protec™ 160 is part of a portfolio of engineered synthetic roofing underlayments that also includes Tyvek® Protec™ 120 and Tyvek® Protec™ 200.

PROPERTIES

Review all instructions and (Material) Safety Data Sheet ((M)SDS) before use. Please contact DuPont at 1-800-448-9835 when additional guidance is required for writing.

TABLE 1: Physical Properties of Tyvek® Protec 160™

Test Method	Property	Typical Value	Units
ASTM D1777	Nominal Thickness	0.379	mm
ASTM D1777	Nominal Thickness	14.9	mils
ASTM D4869	Liquid water transmission	Pass	-
ASTM E96	Permeability	<0.05	Perms
ASTM D751	Tensile strength (MD / CD)	MD: 96.8 CD: 95.4	lbf
ASTM D751	Elongation (MD / CD)	MD: 20.3 CD: 19.4	%
ASTM D4533	Tear strength (MD / CD)	MD: 30 CD: 35	lbf
ASTM E108	Fire rating	Class A	-
ICC-ES AC188	UV exposure	180	days
Thermal Cycling	Temperature range	-40°F to 240°F (-40°C to 115°C)	°F (°C)
ICC-ES AC188, per ASTM D226	Code approvals	Pass	-

TABLE 2: Specifications for Tyvek® Protec 160™

Specifications	Typical Value	Units
Length per roll	250	ft
Width per roll	48	in
Weight per roll	31	lb
Roll size	10	square
Rolls per pallet	36	-
Pallet weight	1225	lb
Weight per square	3.1	lb
Warranty	40	years

DuPont™ Tyvek® Protec™ 160 – Installation

PRECAUTIONS

Precautions and Safety

- Apply Tyvek® Protec™ taut and wrinkle-free. Do not stretch.
- Do not apply Tyvek® Protec™ over wet or frost-covered roof sheathing.
- Caution should be taken when walking on Tyvek® Protec™ until it has been fastened according to instructions.
- Caution should be taken when walking on Tyvek® Protec™ when it is wet or frost-covered.
- Use fall protection when working on roof. Refer to OSHA safety regulations 29 CFR1926 subpart M.
- Consult your local DuPont™ Tyvek® Specialist for additional information.

Preparation

- Apply Tyvek® Protec™ over a dry, smooth, clean and defect-free roof deck. Tyvek® Protec™ cannot be installed over existing roof cladding.
- Tyvek® Protec™ is a vapor barrier. Ensure that the space beneath the roof sheathing is properly ventilated before installing to avoid condensation problems.

INSTALLATION INSTRUCTIONS

1. Lay courses of Tyvek® Protec™ 160 horizontally in “shingle style” fashion following the lap lines provided in 4” course overlaps and 6” end laps beginning along the eave edge. Offset end laps in successive courses by 6 feet.
2. When attaching Tyvek® Protec™ 160 to the roof sheathing:
 - When used under asphalt shingles, and metal roof cladding, 1” diameter (min) metal or plastic (ring shank or smooth shank) cap-nails or cap-staples are required.
 - When used under asphalt or metal roof cladding, 1” diameter (min) metal or plastic cap-nails or cap staples are recommended. Un-capped staples or standard roofing nails may be used if shingles are installed within 36 hours (unless rain or high winds are expected). Use of un-capped fasteners may result in a risk of blow off or leakage around the fastener penetrations during a wind or rain event.
 - All anchoring must be performed flush to the roof and 90 degrees to the roof deck.
 - Install fasteners 12” on center (o.c) along course and end over-laps and a single row 24” on center along the middle line of the field. Use the printed pattern as a guide.
3. In high wind zones (at or above 100 mph per IRC R301.2), fasteners must be installed at all printed locations on the DuPont™ Tyvek® Protec™ 160. It must be fastened using corrosion-resistant metal or plastic cap nails with a head diameter of at least 1” and a thickness of at least 32-gauge sheet metal. The cap-nail shank shall be a minimum of 12 gauge (0.105 inches) with a length to penetrate through the roof sheathing of a minimum of ¼ inch into the roof sheathing.
4. Apply Tyvek® Protec™ 160 with two layers on roofs with slopes between 2:12 and up to 4:12. Begin with a 26” undercourse strip parallel to the eave edge, and then cover with a full width sheet. Overlap successive sheets by 26”.
5. Install Tyvek® Protec™ 160 over drip edges along eave edge and under drip edges along rake edges.
6. Lap Tyvek® Protec™ 160 8” (min) onto walls.
7. Line roof valleys with a sheet of Tyvek® Protec™ 160 prior to installing horizontal courses of Tyvek® Protec™ 160. Lap the ends of horizontal Tyvek® Protec™ 160 courses over the valley sheet by 6”.
8. At ridges and hips where ridge vents will not be applied, cross-lap Tyvek® Protec™ 160 from one roof plane onto the other by 6”. For additional weather protection, apply a 24” wide sheet of Tyvek® Protec™ 160 across hips and ridges.

DuPont™ Tyvek® Protec™ 160 – Warranty Information

40-Year Limited Product Replacement

This is not a Consumer Warranty.

DuPont provides the following warranty to Builders, General Contractors or Professional Installers upon the terms and conditions set forth herein. Warranty is not transferable.

The DuPont™ Tyvek® Protec™ product (hereinafter “Tyvek® Protec™ Product”) originally installed as a standard part of the building envelope on a building roof identified by ICC-ES AC188 in North America entitles you to certain quality assurance standards as provided in this DuPont™ Tyvek® Protec™ Product Replacement 40-Year Limited Warranty (“warranty”).

This 40-Year Limited Warranty is effective for this product purchased and installed after June 1, 2016.

Product Only Warranty

E. I. du Pont de Nemours and Company (“DuPont”) warrants that the Tyvek® Protec™ Product originally installed on a roof having a minimum 2:12 slope will meet the “Pass” requirements of ICC-ES AC188 for its liquid water holdout property in effect at the time of purchase of the Tyvek® Protec™ Product for a period of forty (40) years after the date of purchase when the problem is caused solely by the failure of Tyvek® Protec™ Product to meet that property. If the Tyvek® Protec™ Product is repaired or replaced, the warranty will continue from the original date of purchase and not from the date of repair or replacement.

This warranty DOES NOT COVER any damages arising from:

1. The negligence, gross negligence, or willful misconduct of any builder, general contractor, professional installer or any third party;
2. Acts of God, including but not limited to, fire and lightning, hurricane, high winds;
3. Vandalism or attack by any party;
4. Defects in the structure or a component of the structure (e.g., window, skylight, chimney, vents, etc.) or selection of any components of the structure, or premature deterioration of the building materials, or nonstandard use or application of the Tyvek® Protec™ Product;
5. Foreign objects or agents, including incompatibility of materials;
6. UV exposure of the Tyvek® Protec™ Product in excess of that set forth in the applicable Physical Properties Data Sheet;
7. The warranty is void if the Product is used as a permanent primary water barrier.
8. Improper installation of the Tyvek® Protec™ Product, improper building practices or design not in accordance with the applicable building code or industry standards, or any deviation from approved construction plans or project specifications. The Tyvek® Protec™ Product must be installed in accordance with the applicable DuPont Installation Guidelines that are in effect at the time of the installation of the Tyvek® Protec™ Product. Installation Guidelines are available by calling 1-800-448-9835 and online at www.tyvek.com/protec.

What DuPont Will Do and What You Must Do

DuPont will provide to the Builder, General Contractor or Professional Installer only that quantity of replacement product required to replace any defective product that fails to meet the “Pass” requirements of ICC-ES AC188. You will be responsible for any other costs associated with or arising out of the repair or replacement. You must reasonably cooperate with DuPont or its representatives in their efforts to perform their obligations under these warranties, such as providing access in order to view installed product or to obtain samples for testing.

How You Can Get Warranty Service

To obtain service under this warranty, you must promptly contact DuPont at www.Weatherization.Tyvek.com or call 1-800-448-9835 regarding any potential claim, but no later than sixty (60) days after you discover any potential claim, and you MUST provide DuPont with proof of purchase and/or of installation of the Products within the associated warranty period. You must provide DuPont with a reasonable opportunity to inspect the building within sixty (60) days after DuPont receives notice of your potential claim.

You must also provide access to DuPont to recovery of samples of the DuPont Products from the actual installation in sufficient quantities in order to perform testing to determine whether or not the DuPont Product failed as set forth herein. If obtaining the required samples proves not to be feasible, then, in the alternative, DuPont may use retainer samples for DuPont Products manufactured from the same lot as those used in the actual installation.

Exclusion of Damages

DUPONT’S SOLE LIABILITY UNDER THIS WARRANTY IS LIMITED TO REPLACEMENT OF THE TYVEK® PROTEC™ PRODUCT COVERED BY THIS DUPONT WARRANTY ONLY WHEN CAUSED SOLELY BY THE FAILURE OF THE TYVEK® PROTEC™ PRODUCT TO MEET THE APPLICABLE LIQUID WATER HOLDOUT PROPERTY AS REFERENCED ABOVE AND THE CONDITIONS SET FORTH ABOVE. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, DUPONT SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR FROM ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOST PROFITS, LOST REVENUE, LOSS OF USE OR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY..

The foregoing is the only warranty made by DuPont for the Tyvek® Protec™ Product. No representative, dealer or any other person is authorized to make or makes any warranty, representation or promise on behalf of DuPont with respect to such product No terms or conditions other than those stated herein or provided by law, and no agreement or understanding, oral or written, in any way purporting to modify this warranty shall be binding upon DuPont unless made in writing and signed by an authorized employee of DuPont.

This Warranty is Not a Performance Claim.

*This warranty is effective June 1, 2016.



**For more information visit
tyvek.com or call 1-833-338-7668**

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