**What is TPO?**

TPO (thermoplastic polyolefin) is a single-ply reflective roofing membrane made from polypropylene and ethylene-propylene rubber polymerized together. This thermoplastic cool roof solution has gained broad industry acceptance for its many performance and installation advantages. TPO is among the fastest growing commercial roofing products in the world today.

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**Benefits of TPO**

- **DURABILITY, FLEXIBILITY AND VERSATILITY**
  - TPO is highly resistant to tears, impacts, and punctures with good flexibility to allow for building movement.
  - Can be installed on low and high slope surfaces.
  - Can be heated and reshaped or melted multiple times.

- **ECONOMICAL AND EASY TO INSTALL**
  - Membrane's flexibility allows for a rapid installation and requires little maintenance.
  - Large panels reduce number of seams and cut labour costs drastically.

- **COOL ROOFING MATTERS**
  - A light coloured roof that reflects the sun’s energy can play a significant role in reducing the buildings cooling costs.
  - It also offers benefits to the surrounding environment through a reduction of the urban heat island (UHI) effect.

- **WELDED SEAMS FOR LONG-LASTING PERFORMANCE**
  - TPO membranes are heat-welded at 926ºC with a hot-air gun. The result is a fused seam that’s stronger than the field of the membrane.

- **ECO-FRIENDLY**
  - TPO membranes contain no toxic or hazardous ingredients and are fully recyclable.

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**CASE STUDY**

**Zero Repairs for over 15 Years - and Counting**

Judge Memorial High School in Salt Lake City, UT installed Firestone’s UltraPly™ TPO system in 1998 to replace its built-up roof. The roof shows almost no wear to date, provides consistent whiteness and had zero repairs to date.

> The Firestone UltraPly™ TPO roofing system has been a good product all around. We haven’t even had minor repairs.

- *KEN LEWIS, Maintenance Supervisor*

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**CASE STUDY**

**TPO on one of the most efficient buildings in the world**

The Earth Rangers Centre (ERC) in Woodbridge, ON is a global leader in energy efficiency and sustainable operations. The ERC is currently the highest-rated LEED building in Canada. 16,000 square feet of Firestone UltraPly™ TPO keep the building cool and waterproof since 2003.

> I would recommend UltraPLY TPO™, particularly when comparing to asphalt roofs. Since installation in 2003, we have not had a single issue to deal with on this roof. This is very important to me managing this facility, because the same cannot be said of most mechanical systems.

- *Andy Schonberger, Director, Earth Rangers Centre Chair Board Of Directors, CaGBC - Toronto Chapter*

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**Did you know?**

- TPO roofing membranes originated in Italy and have performed since the 1980’s.
- Several manufacturers offer TPO roofing but no two membranes are alike in physical properties, look or feel.
- TPO is typically installed in 3 colours: white, grey, tan.
- TPO has been used in underground cabling and waterproofing for more than 30 years.

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**TPO vs. PVC**

Firestone Building Products withdrew from the PVC market in 2005 as a commitment to the environment amongst a global shift to phase out PVC – which is manufactured from Vinyl Chloride Monomer (VCM), a known human carcinogen.*

A wide range of major corporations including Microsoft, HP, Shaw, Wal-Mart, Nike, Mattel, Lego, Johnson & Johnson, GM, VW, and Honda have begun the switch to alternative materials. PVC is already banned in certain states.**

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**ENVIRONMENTAL IMPACT**

TPO membranes have a drastically lower environmental impact compared to PVC throughout their entire life cycle.

- 30.9 Kg CO₂ per m² of installed Adhered White 60 mil membrane.
- 73.1 Kg CO₂ per m² of installed PVC membrane.

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* World Health Organization, ** Healthy Building Network, *** Green Team Inc.
Firestone UltraPly™ TPO

Why Firestone?

Firestone UltraPly™ TPO is a high performance roofing system with warranties stretching up to 30 years. Its high puncture resistance, aesthetics, low installation cost and resistance to degradation from UV radiation make it the system of choice for sustainable new or re-roofing project across the globe.

A TRADITION OF EXCELLENCE

1980 - Bridgestone Corporation develops first Thermoplastic Olefin sheets
1999 - Firestone Building Products launches UltraPly™ TPO
2001-2002 - UltraPly TPO honored to receive Energy Star® certification from EPA
2003-2004 - Firestone introduces Wide-Weld seaming technology for enhanced wind uplift
2005-2009 - Due to high demand, Firestone rolls out UltraPly TPO Platinum, TPO XR and TPO InvisiWeld Systems
2010-PRESENT - Firestone offers UltraPly TPO XR in a foam adhesive system and UltraPly TPO SA

A TRADITION OF EXCELLENCE

Firestone UltraPly™ TPO projects worldwide

Top it with a Vegetative Roof

Firestone UltraPly™ TPO has been the membrane of choice globally under vegetative roof installations. It has successfully passed the FLL test for roof penetration resistance.

Top it with a PV Roof

Firestone UltraPly™ TPO’s highly reflective properties produce an optimal cool roof platform for PV panels. Its resistance to punctures, high-temperatures and UV guarantees a watertight energy-producing rooftop.

Firestone UltraPly™ TPO – A winning formulation

Since its introduction in 1998, UltraPly TPO has offered the most sustainable and economical TPO formulation in the market. It contains no plasticizers – loss of plasticizers results in loss of flexibility and cracking.

It contains no halogens – a toxic and carcinogenic industrial chemical used in PVC manufacturing. The UltraPly™ TPO performs at more than three times the ASTM International standard for weathering resistance.

Firestone UltraPly™ TPO – Platinum

The UltraPly™ TPO Platinum is a high performance roofing system backed by a comprehensive 30-year Red Shield Warranty. Comprised of a durable, 80-mil-thick scrim-reinforced membrane, the UltraPly Platinum TPO system can be fully adhered or mechanically attached to Firestone insulation and fastened to a wide range of deck substrates. It is an optimal roof assembly for green technology upgrades.

Experience The Firestone Difference

- High Performance Systems
- Quality Control
- Support & Expertise
- Stability & Innovation
- Resources
- R&D Commitment
- Green Focused

Contact a Firestone rep today for your next roofing project: 1-888-292-6265 | www.firestonebp.ca