



Firestone UltraPly™ TPO: your safest bet in roofing with 20 years of proven performance



First UltraPly TPO project (Las Vegas, US, 1996)

With an unchanged formulation since the beginning, Firestone's reflective thermoplastic roofing system delivers consistent performance regardless of weather conditions

Firestone Building Products, one of the world leaders in synthetic EPDM and TPO roofing systems for flat roofs, celebrates the 20th anniversary of its UltraPly™ TPO roofing system.

In 1996, Roberts Roofing and Floor Inc. took a gamble by agreeing to try Firestone's new reflective thermoplastic membrane on a warehouse in Las Vegas, in the challenging climate of the Nevada desert.

With one of the highest UV exposure levels in the world and substantial temperature differences between day and night, the location of this first project proved to be the ideal testing ground for the UltraPly TPO roofing system.

Twenty years later, the bet continues to pay off. The initial roofing system is still performing fine, without any leaks or cracks.

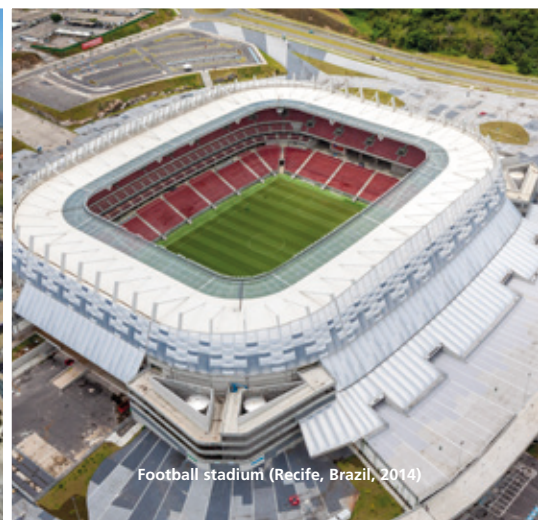
Since that first project in 1996, the UltraPly TPO roofing system has been selected for projects in the most diverse weather conditions. From the International Airport in Bali (a location with a UV exposure level even higher than Las Vegas) to an ice-skating rink in Bavaria, Germany, where snow and ice are part of the usual winter landscape. The performance of the Firestone UltraPly TPO roofing system has always remained consistent, no matter how extreme the environment.



Ice-skating rink (Inzell, Germany, 2011)



International Airport (Bali, Indonesia, 2013)



Football stadium (Recife, Brazil, 2014)



High quality starts with good chemistry

Although there are several TPO membranes in the market, not all TPO membranes are the same. After years of product development, the Firestone UltraPly TPO roofing membrane is based on a specific thermoplastic polyolefin polymer in which polypropylene and ethylene-propylene rubber are properly balanced for optimum performance, compounded with UV stabilizers, heat stabilizers and antioxidants, and equipped with a special weft-inserted polyester reinforcement. It contains no plasticizers, no chlorine, no heavy metals and it achieves its fire performance using non-halogenated flame retardants. In short, it possesses the right chemical combination - using only the highest quality ingredients - which allows the membrane to remain stable and stand the test of time.

"Great chemistry is a determinant factor for the material to perform successfully in the long term," says Pascal Meirsschaert, Technical Director of Firestone Building Products EMEA. "The formula for Firestone UltraPly TPO membranes has remained unchanged since the beginning."

The UltraPly TPO roofing membrane is manufactured in an ISO 9001-certified facility and meets the requirements of the American ASTM standard, the European EN standard and the Chinese GB standard, among others.

Quality installation made easy

Another key factor in the consistent success of the UltraPly TPO roofing system is the high quality of its installation, carried out by trained professional Licensed Roofing Contractors who share Firestone's commitment to delivering quality roof installations.

The Firestone UltraPly TPO roofing system can be used in mechanically attached (MEC) fully adhered (FAS) or ballasted (BAL) systems and is compatible with extensive green roof and solar PV installations. The UltraPly TPO membrane is available in large sheets up to 3.05 m wide by 30.5 m long, which contributes to reducing installation time.

Hot air is used to weld the membranes together: the upper and lower layers fuse together and form a completely uniform seam. This welding method provides an extremely strong, uninterrupted and swift seaming which can be used virtually all year round.

Should the membrane be in need of repair, its stable chemical structure makes this task easy, even after several years of service.

In addition to the membrane, Firestone has developed a full range of UltraPly TPO accessories designed to meet the specific requirements of different roofing applications and installation details.

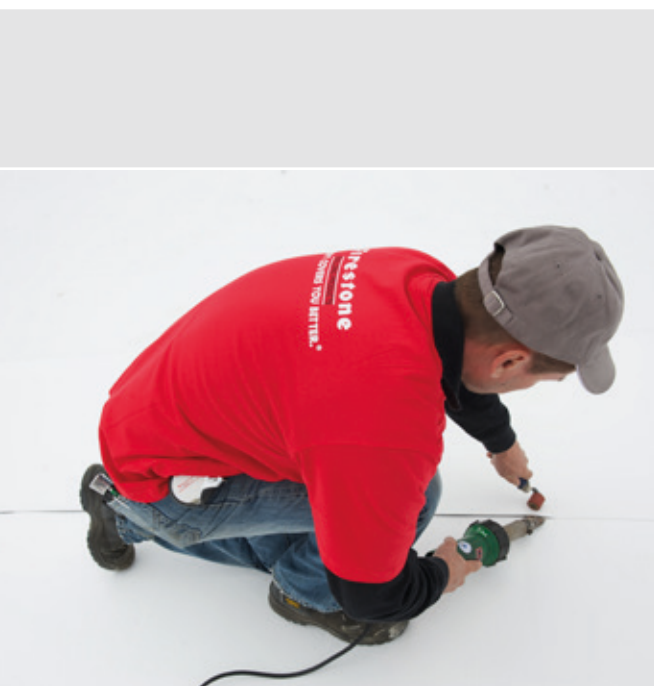
A light-colored membrane with green attributes

The top-ply of Firestone UltraPly TPO membranes may be white or light gray, but at heart they are a very "green" roofing solution.

The membrane is manufactured in an ISO 14001-certified facility and its production process has a low environmental impact and generates almost zero scrap, as the regrind can be incorporated into the bottom-ply to produce a new TPO product.

The UltraPly TPO membrane outstanding reflectivity also contributes to improving the energy efficiency of buildings. The light color of its top layer reflects the sunlight before it is absorbed and converted into heat radiation. This is particularly remarkable when using the white membrane, as it can considerably reduce the inside temperature of buildings during sunny and hot periods.

Life expectancy is also an important factor when judging a roofing system's environmentally-friendly qualities. With the proven performance of the first project in Las Vegas, and many other projects around the globe, Firestone UltraPly TPO roofing systems can be expected to be in service for several decades, in any climate.



Shopping center (Mouscron, Belgium, 2015)