

# Firestone UltraPly™ TPO Green Roofing Systems



Putting a garden on your roof is a great way to make better use of city space, protect the environment and save money in the long term. These vegetative or garden roofs - a roof area of plantings installed above a waterproofing membrane - have become very successful on rooftops around the world.

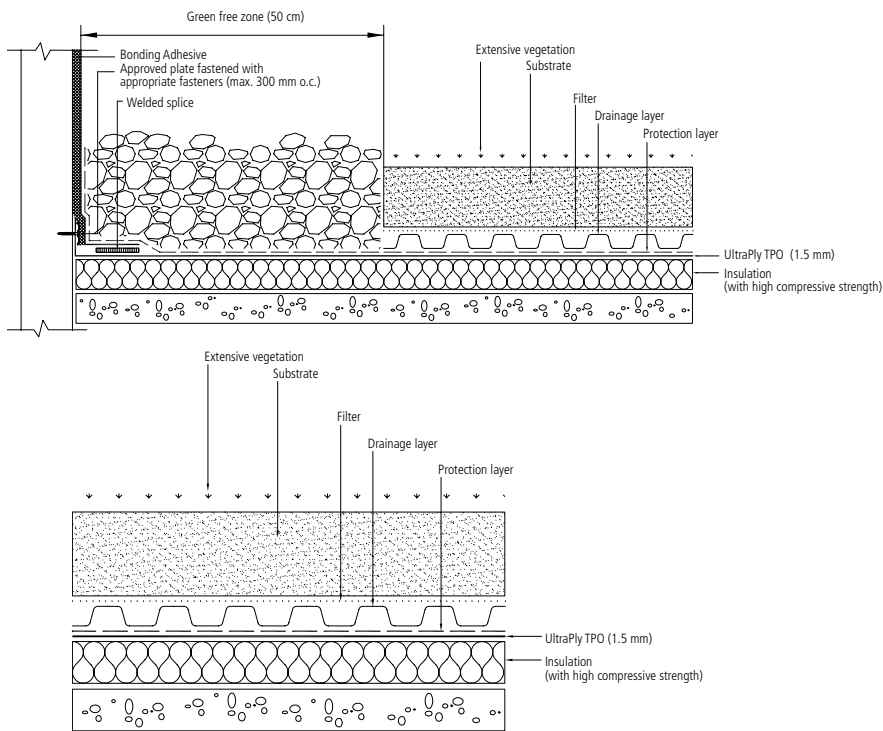
**Firestone UltraPly™ TPO** is an ideal membrane for combination with extensive green roof systems, using lightweight and low maintenance sedum vegetation. This lightweight, scrim-reinforced and heat-weldable membrane has successfully passed the FLL test for root penetration and can therefore provide dependable performance in a demanding roofing environment.

The benefits of the combination of a Firestone UltraPly™ TPO membrane with a green roof system are numerous:

- ✔ Increased life expectancy of the roof
- ✔ Added value and aesthetics
- ✔ Lower energy costs
- ✔ Easy installation and maintenance
- ✔ Improved air quality
- ✔ Reduction of the urban heat-island effect
- ✔ Storm water management
- ✔ Extra soundproofing and insulation
- ✔ A natural habitat for plants and birds



# Recommended build-up for extensive roofs\*



\* For other types of green roofs, please contact Firestone's Technical Department.

## Firestone UltraPly TPO - Product Information

Product Line			
Membrane	EU Sizes	US Sizes	Unit
Thickness	1.2 - 1.5 - 1.8	1.1 - 1.5	mm
Width	1.5 - 2.0	1.52 - 2.44 - 3.05	m
Length	30.5	30.5	m
Weight	1.2 - 1.5 - 1.8	1.1 - 1.5	kg/m <sup>2</sup>
Physical Properties			
Property	Test Method	Declared value*	Unit
Watertightness	EN 1928 (B)	pass	
Tensile strength (L/T)	EN 12311-2 (A)	≥ 1200	N/50 mm
Elongation at break (L/T)	EN 12311-2 (A)	≥ 20	%
Resistance to static load - soft substrate	EN 12730 (A)	≥ 20	kg
Resistance to static load - hard substrate	EN 12730 (B)	≥ 20	kg
Resistance to impact - soft substrate	EN 12691 (B)	≥ 2000	mm
Resistance to impact - hard substrate	EN 12691 (A)	≥ 800	mm
Tear resistance (L/T)	EN 12310-2	≥ 400	N
Joint peel resistance	EN 12316-2	≥ 300	N/50 mm
Joint shear resistance	EN 12317-2	≥ 800	N/50 mm
Foldability at low temperature	EN 495-5	≤ -40	°C
UV exposure	EN 1297	pass	
Resistance to root penetration	EN 13948	pass	
Fire Properties			
Property	Standard	Classification	
Reaction to fire	EN 13501-1	E	
External fire performance	EN 13501-5	B <sub>ROOF</sub> (t1)	

\* Values applicable to the UltraPly TPO 1.5 mm membrane. Testing results and/or copies of Approval Documents for above mentioned membranes are available upon request. For latest updates and additional info please consult our website at [www.firestonebpe.com](http://www.firestonebpe.com).



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