



## TPO Roof Membranes Compared: Siplast Parasolo TPX™ vs. the Competitors

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### Introduction

Not all TPO roofing membranes are created equal. When it comes to durability, performance, and long-term value, the differences can be significant. That's why life cycle cost analysis matters. Siplast's Parasolo TPX™ delivers premium quality and reliability. This document takes a closer look at how Parasolo TPX™ compares to leading competitors, demonstrating why it's an ideal choice for single-ply roofing systems.

### Why Comparison Matters

Choosing a roofing membrane isn't just about price—it's about performance, longevity, and peace of mind. A roofing system's ability to protect the building against weather, maintain its integrity, and provide additional benefits, such as high reflectivity, is critical. This comparison highlights key performance metrics that every decision-maker should consider.

## Breaking Down the Metrics

Table 1 offers a side-by-side evaluation of the most critical properties of TPO membranes, comparing Siplast Parasolo TPX™ to its leading competitors. An Explanation of Metrics follows Table 1.

Comparison of 60 mil TPO Performance Metrics						
Properties	Test Method	Test Method Requirement, Min.	Siplast 60 mil TPX	Competitor 1 - 60 mil White	Competitor 2 - 60 mil White	Competitor 3 - 60 mil White
Thickness Over Scrim	ASTM D6878	15 mils or 30% of overall thickness	26 mils	24 mils	27 mils	21 mils
Elongation at Break	ASTM D751	15%	29%	25%	27%	25%
Factory Seam Strength	ASTM D751	66 lbf	134 lbf	> 66 lbf	112 lbf	Not published
Tearing Strength, MD + CMD	ASTM D751	55 lbf	71 lbf + 134 lbf	130 lbf	>60 lbf + >60 lbf	120 lbf
Solar Reflectance	ASTM C1549	N/A	0.83 initial	0.79 initial	0.77 initial	0.79 initial
Solar Reflectance, Aged	ASTM C1549	N/A	0.72 aged	0.70 aged	0.70 aged	0.69 aged
Hydrostatic Resistance	ASTM D751	220 psi	460 psi	Not Published	474 psi	Not published
Weather Resistance	ASTM G155	10,800 kj/m2	>56,000 kj/m2	Pass	>20,160 kj/m2	>60,000 kj/m2

Table 1: A side-by-side evaluation of critical properties of TPO membranes.

Values were compiled from published data sheets accessed on April 10, 2025. These values are not based on actual head-to-head testing of the membranes. Competitor 1: [Carlisle](#). Competitor 2: [JM](#). Competitor 3: [Elevate](#).

## Explanation of Performance Metrics

- **Thickness Over Scrim:** A greater thickness over scrim can enhance durability and help extend a roof's lifespan. Parasolo TPX™ (60 mils) ranks near the top with a thickness over scrim of 0.026 inches (26 mils).
- **Elongation at Break:** Higher percent elongation at break typically means better flexibility, higher tearing strength, and increased puncture resistance.\* Parasolo TPX™ leads with 29% elongation at break.
- **Factory Seam Strength and Tearing Strength:** These metrics highlight the membrane's ability to withstand physical stress during installation and stresses experienced over time. Parasolo TPX™ demonstrates strong performance in this category.

- Solar Reflectivity: With excellent initial and three-year aged reflectivity values, Parasolo TPX™ can help support potential savings on cooling costs\*\* by reflecting more solar radiation than competitor products. Parasolo TPX™ retains nearly 87% of its initial reflectivity, based on standardized testing metrics used in the roofing industry.
- Hydrostatic Resistance: Parasolo TPX™ has excellent resistance to water pressure, which ensures better performance in wet conditions, more than doubling the industry's minimum ASTM requirement.
- Weather Resistance Per ASTM G155: The ability to remain damage-free after significant simulated weather exposure means long-term field performance can be expected. Parasolo TPX™ significantly exceeds the industry's minimum requirements.

## Conclusion

Siplast Parasolo TPX™ provides strong performance in the TPO roofing membrane arena. With exceptional strength, durability, and reflectivity, Parasolo TPX™ excels in every key performance metric. TPX™'s primary strengths lie in its proven reliability and robust, long-term performance. To learn more about Siplast Parasolo TPX™ or to see how it can elevate your next project, contact us today or visit [Siplast.com](https://www.siplast.com).