

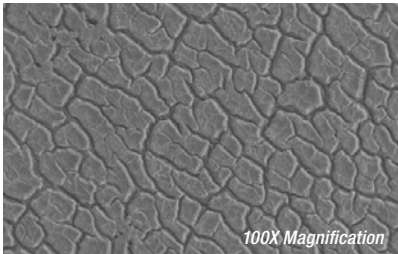
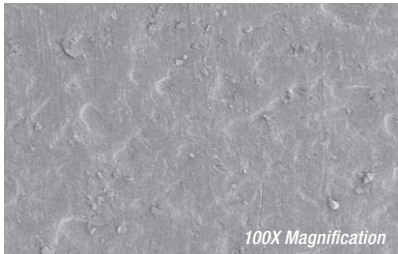
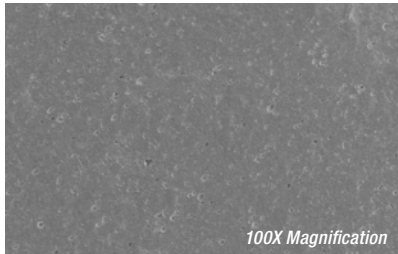
Low Cost, Low Performance PVC - Not Worth the Sacrifice

While TPO and PVC offer different features and benefits, one such factor that should always be shared is long-term performance. Dependable performance is the primary function of any roofing system, which is why it is the most vital feature of all Carlisle membranes. Some relatively new PVC membranes may claim to offer the “best of both worlds”, but end up sacrificing the most critical of performance attributes.

Offering various single-ply options, Carlisle’s interest is not vested in which membrane you choose - it’s ensuring the product you select is best suited for your specific project and provides the dependable protection you expect.




WEATHERING

Accelerated weathering tests show a drastic difference when comparing the three membranes. The images below are the results of Xenon-Arc testing designed to replicate rooftop conditions for determining long-term performance. As seen below, visible aging of this low-cost, low-performance PVC starts to occur at an energy equivalent to just over 5.5 years of aging in the Miami sun.

Low Cost/Low Performance PVC	Sure-Weld® TPO	Sure-Flex™ PVC
		

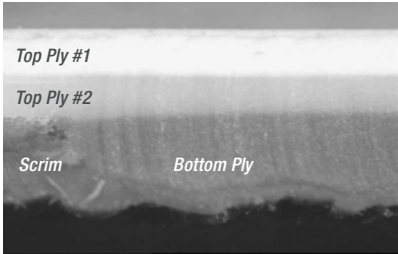
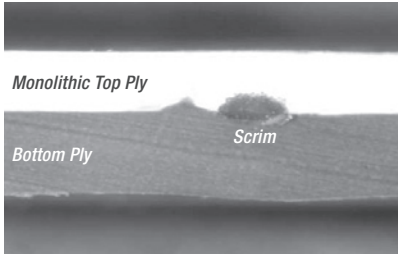
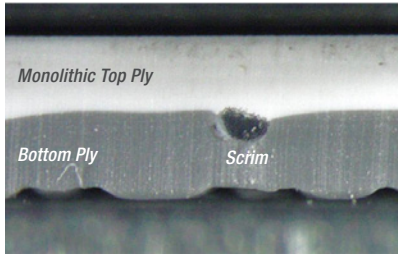
MICROBIAL GROWTH

The ability for a membrane to resist microbial growth is an important consideration when it comes to aesthetics and maintaining rooftop reflectivity.

Low Cost/Low Performance PVC	Sure-Weld TPO	Sure-Flex PVC
 <p>Thin Lacquer Coating</p> <p>A low-cost preventative measure that is destroyed by heat-welding and wears off within the first few years of exposure, exposing a food source for dark and unsightly mold or algae to grow on the membrane.</p>	 <p>Inherent Microbial Resistance</p> <p>Naturally resistant to mold and algae because there is no food source in TPO membrane to support microbial growth.</p>	 <p>Antimicrobials</p> <p>Formulated to be included throughout the entire sheet to ensure maximum resistance to microbial growth.</p>

CONSTRUCTION OF TOP PLY

Analyzing the construction of a membrane can point to areas where manufacturing costs are cut resulting in reduced weathering performance. Each of the samples listed below is a 60-mil membrane, but you will find they are not all created equal.

Low Cost/Low Performance PVC	Sure-Weld TPO	Sure-Flex PVC
 <p>Layered Top Ply Listed at a 24-mil thickness over scrim, this measurement includes the lacquer coating (discussed in the microbial growth section) along with two differing layers of polymer. The lower layer of polymer (Top Ply #2) features a reduced weathering package compared to the upper layer (Top Ply #1) for cost savings. The result is a much thinner layer of effective polymer over scrim than what a monolithic sheet features.</p>	 <p>Monolithic Top Ply Features a 24-mil monolithic thickness over scrim. The entire top ply is a fully formulated polymer for maximum weatherability and long-term protection against the elements.</p>	 <p>Monolithic Top Ply Features a 27-mil monolithic thickness over scrim. The entire top ply is a fully formulated polymer for maximum weatherability and long-term protection against the elements.</p>

WARRANTIES

Offering warranted systems is a common practice in the roofing industry, however, duration, exceptions, and inclusions vary greatly depending on the product selected.

Low Cost/Low Performance PVC	Sure-Weld TPO	Sure-Flex PVC
<p>Most lower-performance PVC manufacturers offer a restricted warranty, typically lasting no longer than 20 years, which limits their liability to the original installed cost of the roofing system. Typically warranty options for hail, accidental puncture or reflectivity are not available.</p>	<p>Carlisle offers total system warranties up to 30 years with no dollar limit. No Dollar Limit warranties reflect a commitment and ability to address any warranty issue for up to 30 years. Carlisle also offers warranties that protect against hail and accidental punctures, as well as a reflectivity warranty option for TPO roofing systems.</p>	<p>Carlisle offers total system warranties up to 30 years with no dollar limit. No Dollar Limit warranties reflect a commitment and ability to address any warranty issue for up to 30 years. Carlisle also offers warranties that protect against hail and accidental punctures.</p>