TPO vs EPDM vs PVC: Which Single-Ply Roof Wins for GTA Commercial Buildings in 2026

Quick reference guide by Industrial Roofing Services Limited

TPO

Thermoplastic polyolefin. White, hot-air welded. $11-16 per sq ft installed, 60 mil. 20-30 year service life. Best general-purpose membrane for GTA warehouses.

EPDM

Synthetic rubber. Black (usually). Tape-and-primer seams. $10-15 per sq ft installed, 60 mil. 30-40 year service life. Best for long-hold owners, simple roofs, no rooftop equipment.

PVC

Thermoplastic membrane. Hot-air welded. $14-20 per sq ft installed. 25-35 year service life. Required for grease, chemical exhaust, and rooftop solar applications.

Wind uplift

All three pass FM Global wind testing in the GTA. Mechanically attached for TPO and PVC. Ballasted EPDM rarely allowed on newer decks.

Energy performance

White TPO and PVC reflect 75-85% solar. Black EPDM reflects under 10%. Cooling savings pay back the white-membrane premium in 8-12 years.

Chemical resistance

PVC is the only choice near grease vents, kitchen exhausts, or industrial chemical stacks. TPO and EPDM degrade with prolonged grease contact.

Welding vs taping

Hot-air welds (TPO, PVC) are stronger than the membrane and probe-testable. EPDM tape seams need careful prep and are the most common 30-year failure point.

Decision matrix

Standard warehouse: TPO. Long-hold simple roof: EPDM. Grease/chemical/solar: PVC. Cold storage: TPO or PVC fully adhered.

Toronto Green Standard

White TPO and white PVC meet TGS solar reflectance index. Black EPDM does not.

Install quality

Membrane choice matters less than install. Look for certified foreman, probe-tested seams, engineered fastening, detailed flashings.

industrialroofing.ca