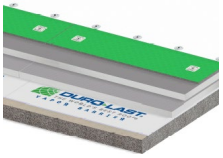
Duro-Tech™ TPO Membranes Mechanically Fastened Over Structural or Lightweight Structural Concrete

Warranty Term
15, 20 and 25 Years
Up to 54 mph (86.9 km/h)



- Duro-TECH™ TPO membranes – mechanically fastened
- Cover board (when required) – mechanically fastened
- Insulation (when required) – mechanically fastened
- Structural or lightweight structural concrete 2,500 psi (17.2 MPa)

Refer to the Duro-TECH Specifications, Guides, and Details at www.duro-last.com

All Products	Must be purchased or approved by Duro-Last®.
Deck Requirements	○ Structural concrete ○ Lightweight structural concrete
Construction Types	Any wet or damaged materials must be removed prior to installation. ○ New construction ○ Re-cover ○ Partial tear-off ○ Complete tear-off
Vapor Barriers	Consult with a design professional to determine requirements of vapor barriers. ○ Duro-Last Vapor Barrier ○ Duro-Last Torch-Down Vapor Barrier ○ Duro-Blue® with taped seams
Warranty Term by Membrane Thickness	○ 15-year warranty – 45 mil (1.14 mm) ○ 20-year warranty – 60 mil (1.52 mm) ○ 25-year warranty – 80 mil (2.03 mm) **(only metal plates required)**
Membrane Options	○ Duro-TECH TPO 45, 60, 80 mil
Membrane, Insulation, and Cover Board Fasteners	Minimum 1-inch (25-mm) penetration and pre-drilled 1/2 inch (13 mm) deeper than required depth. Do not spall the concrete. ○ Concrete Nail #14 ○ Concrete Screw #14 ○ HD Screw #14 ○ EHD Screw #15
Membrane Plates	○ Cleat Plates® ○ Duro-TECH TPO Induction weld plates ○ Duro-TECH TPO HD Seam Plate ○ Poly-Plates **(not recommended over hard boards)** **New concrete requires only metal plates.**
Cover Board Plates	○ 3-Inch Metal Plates ○ Duro-TECH TPO Induction weld plates ○ Cleat Plates ○ Poly-Plates **(not recommended)** ○ Duro-TECH TPO HD Seam Plate **New concrete requires only metal plates.**
Insulation Plates	○ Insulation Plates ○ 3-Inch Metal Plates ○ Cleat Plates ○ Poly-Plates ○ Duro-TECH TPO Induction weld plates ○ Duro-TECH TPO HD Seam Plate **New concrete requires only metal plates.**
Seaming Requirement	1-1/2-inch (40-mm) continuous weld using a hand-held welder with a silicone roller or an automatic welder.
Increased Wind Speed	Must be reviewed by the Duro-Last Engineering Services Department. ○ Wind speed coverage exceeding 54 mph (86.9 km/h)
Code Requirements	Local code must be met. Some code agencies may require special design considerations. Contact the Duro-Last Engineering Services Department for assistance.
Fire ratings	Fire ratings may require certain slip sheets, insulations, or gypsum-based cover boards.
Approved Slip Sheets	○ Duro-Blue ○ Duro-Weave® ○ Geotextile ○ Ballast Mat ○ FR-10 ○ VersaShield®

Minimum Thickness		Substrate Material	Minimum Fasteners Per 4 x 8 ft (1.2 x 2.4 m)
Inches	mm		
1	25	Duro-Guard® ISO II or ISO III	5
1/2	13	Duro-Guard ISO HD or ISO HD-MA	5
2	51	Duro-Guard ISO HD Composite	5
1/4	6	Duro-Guard DEXcell® Glass Mat	4
7/8	22	Duro-Guard DEXcell Cement	4
1/4	6	Duro-Guard DensDeck®	4
1/4	6	Duro-Guard Securock® Glass-Mat	4
3/8	10	Duro-Guard fan folds	16 per bundle – ≤5 ft (1.5 m) laps 28 per bundle – >5 ft (1.5 m) laps

NOTE: Buildings over 40 ft (12.2 m) tall or in high wind zones may require additional fastening. Request a Wind Calc from Engineering to confirm attachment patterns.

DISCLAIMER

This document is meant as a quick reference and may not include details necessary for project completion. Refer to the full Duro-TECH TPO specifications or contact the Duro-Last Engineering Services Department for additional details.

Duro-Last, Duro-Blue, Cleat Plate, Duro-Weave, Duro-Guard, and "World's Best Roof" are registered trademarks owned by Holcim Solutions and Products US, LLC.
All other registered trademarks are property of their respective owners.

Created: 01/20/2025