

**TPO Membrane Attachment Table For Mechanically Attached Systems**  
(10' field sheets, except when noted)

Deck Type	Minimum Pull-out Values (lbs)	Fastener Type	Plate	Penetration	Standard Pattern	90 psf* Pattern
22 ga. standard	450	Drill•Tec XHD (#15)	2 3/8" barbed XHD	3/4" through the deck	12" o.c.	6" o.c.
	450	Drill•Tec XHD (#15)	2" double barbed	3/4" through the deck	12" o.c.	6" o.c.
	450	Drill•Tec XHD (#15)	2 3/4" double barbed SXHD	3/4" through the deck	12" o.c.	6" o.c.
	350	Drill•Tec HD (#14)	2 3/8" barbed XHD	3/4" through the deck	6" o.c.	
	350	Drill•Tec HD (#14)	2" double barbed	3/4" through the deck	6" o.c.	
22 ga. high strength (Grade E)	750	Drill•Tec SXHD (#21)	2 3/4" double barbed SXHD	3/4" through the deck	12" o.c.	12" o.c.
	450	Drill•Tec XHD (#15)	2 3/4" double barbed SXHD	3/4" through the deck	12" o.c.	12" o.c. (8' wide field sheets only)
24 ga. standard	350	Drill•Tec XHD (#15)	2 3/8" barbed XHD	3/4" through the deck	6" o.c.	
	350	Drill•Tec XHD (#15)	2" double barbed	3/4" through the deck	6" o.c.	
	350	Drill•Tec XHD (#15)	2 3/4" double barbed SXHD	3/4" through the deck	6" o.c.	
	350	Drill•Tec HD (#14)	2 3/8" barbed XHD	3/4" through the deck	6" o.c.	
	350	Drill•Tec HD (#14)	2" double barbed	3/4" through the deck	6" o.c.	
2" Nominal Wood Plank	800	Drill•Tec HD (#14)	2 3/8" barbed XHD	1" into the deck	12" o.c.	6" o.c.
	800	Drill•Tec HD (#14)	2" double barbed	1" into the deck	12" o.c.	6" o.c.
1" Nominal Wood Plank	450	Drill•Tec HD (#14)	2 3/8" barbed XHD	Through the deck	9" o.c.	
	450	Drill•Tec HD (#14)	2" double barbed	Through the deck	9" o.c.	
3/4" Nominal Wood Plank	525	Drill•Tec HD (#14)	2 3/8" barbed XHD	Through the deck	12" o.c.	6" o.c.
	525	Drill•Tec HD (#14)	2" double barbed	Through the deck	12" o.c.	6" o.c.

\*90 psf is attachment pattern to provide 90 lbs. per square foot of uplift pressure resistance and may equate to FM I-90, Refer to current FMRC Approval Guide.

NOTE: For designing at elevated uplift pressures, please consult the current FMRC Approval Guide.

## TPO Membrane Attachment Table For Mechanically Attached Systems

(10' field sheets, except when noted)

Deck Type	Minimum Pull-out Values (lbs)	Fastener Type	Plate	Penetration	Standard Pattern	90 psf* Pattern
1/2" Plywood	350	Drill•Tec HD (#14)	2 3/8" barbed XHD	Through the deck	6" o.c.	
	350	Drill•Tec HD (#14)	2" double barbed	Through the deck	6" o.c.	
Structural Concrete	700	Drill•Tec XHD (#15)	2 3/8" barbed XHD	1" into the deck	12" o.c.	6" o.c.
	700	Drill•Tec XHD (#15)	2" double barbed	1" into the deck	12" o.c.	6" o.c.
	900	Drill•Tec Spike	2 3/8" barbed XHD	1" into the deck	12" o.c.	6" o.c.
	900	Drill•Tec Spike	2" double barbed	1" into the deck	12" o.c.	6" o.c.
	900	Drill•Tec Spike	2 3/4" double barbed SXHD	1" into the deck	12" o.c.	12" o.c.
Lightweight Insulating Concrete, 22 ga. standard form	450	Drill•Tec XHD (#15)	2 3/8" barbed XHD	3/4" through the form	12" o.c.	6" o.c.
	450	Drill•Tec XHD (#15)	2" double barbed	3/4" through the form	12" o.c.	6" o.c.
	350	Drill•Tec HD (#14)	2 3/8" barbed XHD	3/4" through the form	6" o.c.	
	350	Drill•Tec HD (#14)	2" double barbed	3/4" through the form	6" o.c.	
Lightweight Insulating Concrete, 24 ga. standard form	350	Drill•Tec XHD (#15)	2 3/8" barbed XHD	3/4" through the form	6" o.c.	
	350	Drill•Tec XHD (#15)	2" double barbed	3/4" through the form	6" o.c.	
	350	Drill•Tec HD (#14)	2 3/8" barbed XHD	3/4" through the form	6" o.c.	
	350	Drill•Tec HD (#14)	2" double barbed	3/4" through the form	6" o.c.	
Gypsum Concrete	400	Drill•Tec Polymer Screw	2" double barbed	1 1/2" into the deck	9" o.c.	6" o.c.
	400	Drill•Tec Polymer Screw	2 3/8" barbed XHD	1 1/2" into the deck	9" o.c.	6" o.c.
Cementitious Wood Fiber	300	Drill•Tec Polymer Screw	2" double barbed	1 1/2" into the deck	6" o.c.	
	300	Drill•Tec Polymer Screw	2 3/8" barbed XHD	1 1/2" into the deck	6" o.c.	

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NOTE: For designing at elevated uplift pressures, please consult the current FMRC Approval Guide.