

## Withdrawal (Pull-out) Capacities (pounds per inch of thread penetration)

Lumber Species	Specific Gravity	5/16" Shank Lag Screw	3/8" Shank Lag Screw	#10 Wood Screw
Douglas Fir-Larch	0.5	340	390	173
Douglas Fir-South	0.46	301	344	146
Englemann Spruce-Lodgepole Pine	0.46	301	344	146
Hem-Fir	0.43	271	311	128
Hem-Fir (North)	0.46	301	344	146
Southern Pine	0.55	393	451	209
Spruce-Pine-Fir	0.42	262	301	122
Spruce-Pine-Fir (South)	0.36	209	238	90
Western Cedars	0.36	209	238	90
OSB/Plywood	0.5	340	390	173

Assumptions:

- Tabulated values above based on American Wood Council, NDS 2005 Table 11.2A
- Information for reference only. Engineer of Record shall be consulted for actual design.
- Thread depth does not include roofing thickness
- Wind Uplift Load Duration, 10 minutes:  $C_D=1.6$
- Rooftop Temperature Range,  $100^\circ F < T \leq 125^\circ F$ :  $C_t=0.8$
- Thread penetration into side grain of structural member
- Values listed above for dry ( $MC \leq 19\%$ ) lumber

