

INSULATED

R19 TSTUD™

Structural Insulated Framing System

STRONGER, SMARTER, AND COST EFFECTIVE

US PATENT NO. 9783985 | THERMALSTUDS.COM/R19TSTUD



The R19 Tstud™ is a revolutionary building product designed with two lumber members, an internal truss system, and frothed-in-place closed-cell foam, all engineered to perfection. With the R19 Tstud™, *say goodbye to thermal breaks, and rigid insulation isn't required.* Experience superior structural strength, enhanced wind load resistance, reduced sound transmission, and elevated fire and life safety standards.



2x6

5.5" R19 Tstud™
Certified to crush #2 SPF
Bottom plate at 3600#

Certified to crush LSL or LVL
Bottom plate at 5600#

Lengths Available:
92 5/8", 8', 104 5/8", 9', 10', 12',
14'* and 16'* (*special order
only)

R19

VS.

R6.8

STANDARD 2X6

5.5" R19 Tstud w/ R21 Fiberglass Batt

Thermal Break (in)	US Imperial Effective R-Value (h*ft²F/Btu)	US Imperial U-Factor (h*ft²F/Btu)	Canadian Metric U-Factor
2.5	23.4	0.043	0.24

98% COMPLETE THERMAL BREAK THROUGH THE WALL ASSEMBLY

with R19 top and bottom plates.

Wall Assembly Layer or Component	R Value
Exterior Air Film	0.17
Wood Siding	0.81
OSB Sheathing	0.55
R19 Tstud	19
Insulation	Varies
1/2" Gypsum Drywall	0.45
Interior Air Film	0.68

HURRICANE CATEGORY 1-5 COMPLIANT | SEISMIC ZONE A-F COMPLIANT



Thermal Studs



Table 3. Allowable Compressive Load for Walls Framed with SPF No. 2 Tstud™

Stud Height (ft)	Allowable Compressive Load ¹ (lbs)			
	Top/Bottom Plate ²			
	Tstud™ (SPF) (SG = 0.42) ³	Southern Pine (SP) (SG = 0.55) ⁴	LVL ⁵	LSL ⁶
8	3665	4875	7070	6900
9	3665	4875	7035	6900
10	3665	4875	6565	6565
11	3665	4875	6045	6045
12	3665	4875	5505	5505
13	3665	4875	4975	4975
14	3665	4475	4475	4475
15	3665	4025	4025	4025
16	3625	3625	3625	3625

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Maximum stud spacing of 24".
2. Compression perpendicular to grain is assumed to be 425 psi for Tstud™ and SPF, 565 psi for SP, 820 for LVL, and 800 for LSL (adjusted per *NDS* Section 3.10.4). Adjustment for plates having a higher or lower compression perpendicular to grain value is required.
3. Compression perpendicular to grain of the Tstud™ or SPF top and bottom plates controls for walls less than or equal to 15 ft. in height.
4. Compression perpendicular to grain of the SP top and bottom plates controls for walls less than or equal to 13 ft. in height.
5. Compression perpendicular to grain of the LVL top and bottom plates controls for walls less than or equal to 8 ft. in height.
6. Compression perpendicular to grain of the LSL top and bottom plates controls for walls less than or equal to 9 ft. in height.

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Thermal Studs

