

Fire-Resistance Rating of VERSA-LAM® LVL Columns

	Fire-Resistance Rating - Minutes					
Column Size	% of Allowable Axial Load on Column					
	50%	60%	70%	80%	90%	100%
5 ¼" x 5 ¼"	34	32	30	28	27	26
5 ¼" x 7"	39	36	34	32	31	30
7" x 7"	46	42	40	38	36	35

Notes:

- 1. Fire-resistance rating based on Equation 7-20 from 2006 International Building Code®.
- 2. Assumed K_e value of 1.0 (pinned- pinned connection). Building design professional of record to review and verify assumed K_e.
- 3. Column must be a solid section, built up columns not allowed.
- 4. For % allowable load on column less t₁an 50%, use values shown for 50% allowable load on column.
- 5. Additional protection of the member and connectors may be required to achieve a minimum fire endurance rating. The building design professional of record is responsible for specifying such material.
- 6. Column height shall not be less than 8'-0".

Example:

Given: $5 \frac{1}{4}$ " x 7" Versa-Lam 1.7 2650 column, 10'-0" column height, Axial Load (only) = 15,500 lb (100% load duration)

Analysis: Go to page 32 of Boise Cascade EWP Specifiers Guide. Maximum allowable load = 26,600 lb. % of Allowable Load = 15,500 / 26,600 = 58 %. Go to table above, using 60% of Allowable Load: Fire resistance rating = 36 minutes