



## Fire-Resistance Rating of VERSA-LAM<sup>®</sup> LVL Columns

Column Size	Fire-Resistance Rating - Minutes					
	% of Allowable Axial Load on Column					
	50%	60%	70%	80%	90%	100%
5 1/4" x 5 1/4"	34	32	30	28	27	26
5 1/4" 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<sup>®</sup>.
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 than 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 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