



SPAN PERFORMANCE TABLES

Confidential Intellectual Property and/or Trade Secrets^{1, 2, 3, 4}

OC™ Lumber is a rotproof, rustproof composite alternative to traditional wood and steel. Designed to install like the lumber you use every day. Made to last.

OC LUMBER JOIST TABLES ALLOWABLE SPAN BY APPLIED LOAD AND DEFLECTION LIMIT

		ALLOWABLE SPAN FOR 40 PSF LL, 10 PSF DL BY DEFLECTION LIMIT				
JOIST SIZE	O.C. SPACING (IN)	L/360 FOR LL	L/240 FOR TL	L/180 FOR TL	L/150 FOR TL	L/120 FOR TL
2x6	12	6'-5"	6'-10"	7'-6"	8'-0"	8'-7"
	16	5'-10"	6'-2"	6'-10"	7'-3"	7'-10"
	24	5'-1"	5'-5"	5'-11"	6'-4"	6'-10"
2x8	12	8'-9"	9'-4"	10'-3"	10'-11"	11'-9"
	16	8'-0"	8'-6"	9'-4"	9'-11"	10'-8"
	24	6'-11"	7'-5"	8'-2"	8'-8"	9'-4"
2x10	12	10'-11"	11'-6"	12'-8"	13'-6"	14'-6"
	16	9'-10"	10'-5"	11'-6"	12'-3"	13'-2"
	24	8'-7"	9'-1"	10'-1"	10'-8"	11'-6"
2x12	12	12'-10"	13'-8"	15'-0"	16'-0"	17'-3"
	16	11'-8"	12'-5"	13'-8"	14'-6"	15'-8"
	24	10'-2"	10'-10"	11'-11"	12'-8"	13'-8"

		ALLOWABLE SPAN FOR 60 PSF LL, 10 PSF DL BY DEFLECTION LIMIT				
JOIST SIZE	O.C. SPACING (IN)	L/360 FOR LL	L/240 FOR TL	L/180 FOR TL	L/150 FOR TL	L/120 FOR TL
2x6	12	5'-7"	6'-1"	6'-9"	7'-2"	7'-8"
	16	5'-1"	5'-6"	6'-1"	6'-6"	7'-0"
	24	4'-5"	4'-10"	5'-4"	5'-8"	6'-1"
2x8	12	7'-8"	8'-4"	9'-2"	9'-9"	10'-6"
	16	6'-11"	7'-7"	8'-4"	8'-10"	9'-7"
	24	6'-1"	6'-7"	7'-3"	7'-9"	8'-4"
2x10	12	9'-5"	10'-3"	11'-4"	12'-0"	12'-11"
	16	8'-7"	9'-4"	10'-3"	10'-11"	11'-9"
	24	7'-6"	8'-2"	9'-0"	9'-6"	10'-3"
2x12	12	11'-3"	12'-2"	13'-5"	14'-3"	15'-5"
	16	10'-2"	11'-1"	12'-2"	13'-0"	14'-0"
	24	8'-11"	9'-8"	10'-8"	11'-4"	12'-2"

		ALLOWABLE SPAN FOR 80 PSF LL, 10 PSF DL BY DEFLECTION LIMIT				
JOIST SIZE	O.C. SPACING (IN)	L/360 FOR LL	L/240 FOR TL	L/180 FOR TL	L/150 FOR TL	L/120 FOR TL
2x6	12	5'-1"	5'-7"	6'-2"	6'-7"	7'-1"
	16	4'-7"	5'-1"	5'-7"	6'-0"	6'-5"
	24	4'-0"	4'-5"	4'-11"	5'-2"	5'-7"
2x8	12	6'-11"	7'-8"	8'-5"	9'-0"	9'-8"
	16	6'-4"	6'-11"	7'-8"	8'-2"	8'-9"
	24	5'-6"	6'-1"	6'-8"	7'-1"	7'-8"
2x10	12	8'-7"	9'-5"	10'-5"	11'-1"	11'-11"
	16	7'-9"	8'-7"	9'-5"	10'-0"	10'-10"
	24	6'-10"	7'-6"	8'-3"	8'-9"	9'-5"
2x12	12	10'-2"	11'-3"	12'-4"	13'-2"	14'-2"
	16	9'-3"	10'-2"	11'-3"	11'-11"	12'-10"
	24	8'-1"	8'-11"	9'-10"	10'-5"	11'-3"

		ALLOWABLE SPAN FOR 100 PSF LL, 10 PSF DL BY DEFLECTION LIMIT				
JOIST SIZE	O.C. SPACING (IN)	L/360 FOR LL	L/240 FOR TL	L/180 FOR TL	L/150 FOR TL	L/120 FOR TL
2x6	12	4'-9"	5'-3"	5'-9"	6'-2"	6'-7"
	16	4'-3"	4'-9"	5'-3"	5'-7"	6'-0"
	24	3'-9"	4'-2"	4'-7"	4'-10"	5'-3"
2x8	12	6'-5"	7'-2"	7'-11"	8'-5"	9'-0"
	16	5'-10"	6'-6"	7'-2"	7'-7"	8'-2"
	24	5'-1"	5'-8"	6'-3"	6'-8"	7'-2"
2x10	12	8'-0"	8'-10"	9'-9"	10'-4"	11'-2"
	16	7'-3"	8'-0"	8'-10"	9'-5"	10'-1"
	24	6'-4"	7'-0"	7'-9"	8'-2"	8'-10"
2x12	12	9'-5"	10'-6"	11'-7"	12'-3"	13'-3"
	16	8'-7"	9'-6"	10'-6"	11'-2"	12'-0"
	24	7'-6"	8'-4"	9'-2"	9'-9"	10'-6"

OC LUMBER BEAM TABLES ALLOWABLE SPAN BY APPLIED LOAD, L/360 DEFLECTION LIMIT SIMPLE SPAN

ALLOWABLE BEAM SPANS FOR 40 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-1"	4'-11"	4'-9"	4'-7"	4'-5"	4'-4"	4'-3"	4'-1"
	3	5'-10"	5'-7"	5'-5"	5'-3"	5'-1"	4'-11"	4'-10"	4'-9"
2x8	2	6'-11"	6'-8"	6'-5"	6'-3"	6'-1"	5'-11"	5'-9"	5'-8"
	3	8'-0"	7'-8"	7'-5"	7'-2"	6'-11"	6'-9"	6'-7"	6'-5"
2x10	2	8'-7"	8'-3"	8'-0"	7'-9"	7'-6"	7'-3"	7'-1"	6'-11"
	3	9'-10"	9'-5"	9'-1"	8'-10"	8'-7"	8'-4"	8'-2"	8'-0"
2x12	2	10'-2"	9'-10"	9'-5"	9'-2"	8'-11"	8'-8"	8'-5"	8'-3"
	3	11'-8"	11'-3"	10'-10"	10'-6"	10'-2"	9'-11"	9'-8"	9'-5"

ALLOWABLE BEAM SPANS FOR 60 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-7"	5'-2"	4'-11"	4'-8"	4'-5"	4'-3"	4'-1"	4'-0"
	3	6'-5"	6'-0"	5'-7"	5'-4"	5'-1"	4'-11"	4'-9"	4'-7"
2x8	2	7'-8"	7'-1"	6'-8"	6'-4"	6'-1"	5'-10"	5'-8"	5'-5"
	3	8'-9"	8'-2"	7'-8"	7'-3"	6'-11"	6'-8"	6'-5"	6'-3"
2x10	2	9'-5"	8'-9"	8'-3"	7'-10"	7'-6"	7'-1"	6'-11"	6'-9"
	3	10'-10"	10'-0"	9'-5"	9'-0"	8'-7"	8'-3"	8'-0"	7'-9"
2x12	2	11'-3"	10'-5"	9'-10"	9'-4"	8'-11"	8'-7"	8'-3"	8'-0"
	3	12'-10"	11'-11"	11'-3"	10'-8"	10'-2"	9'-10"	9'-5"	9'-2"

ALLOWABLE BEAM SPANS 80 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-1"	4'-9"	4'-5"	4'-3"	4'-0"	3'-10"	3'-9"	3'-7"
	3	5'-10"	5'-5"	5'-1"	4'-10"	4'-7"	4'-5"	4'-3"	4'-2"
2x8	2	6'-11"	6'-5"	6'-1"	5'-9"	5'-6"	5'-4"	5'-1"	4'-11"
	3	8'-0"	7'-5"	6'-11"	6'-7"	6'-4"	6'-1"	5'-10"	5'-8"
2x10	2	8'-7"	8'-0"	7'-6"	7'-1"	6'-10"	6'-6"	6'-4"	6'-1"
	3	9'-10"	9'-1"	8'-7"	8'-2"	7'-9"	7'-6"	7'-3"	7'-0"
2x12	2	10'-2"	9'-5"	8'-11"	8'-5"	8'-1"	7'-9"	7'-6"	7'-3"
	3	11'-8"	10'-10"	9'-10"	9'-8"	9'-3"	8'-11"	8'-7"	8'-4"

ALLOWABLE BEAM SPAN FOR 100 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	4'-9"	4'-5"	4'-1"	3'-11"	3'-9"	3'-7"	3'-6"	3'-4"
	3	5'-5"	5'-0"	4'-9"	4'-6"	4'-3"	4'-1"	4'-0"	3'-10"
2x8	2	6'-5"	6'-0"	5'-8"	5'-4"	5'-1"	4'-11"	4'-9"	4'-7"
	3	7'-5"	6'-10"	6'-5"	6'-2"	5'-10"	5'-8"	5'-5"	5'-3"
2x10	2	8'-0"	7'-6"	5'-11"	5'-9"	5'-7"	5'-5"	5'-3"	5'-2"
	3	9'-1"	8'-6"	8'-0"	7'-7"	7'-3"	6'-11"	6'-9"	6'-6"
2x12	2	9'-5"	8'-9"	8'-3"	7'-10"	7'-6"	7'-2"	6'-11"	6'-9"
	3	10'-10"	10'-1"	9'-5"	9'-0"	8'-7"	8'-3"	8'-0"	7'-9"

OC LUMBER BEAM TABLES ALLOWABLE SPAN BY APPLIED LOAD, L/360 DEFLECTION LIMIT MULTIPLE SPAN

ALLOWABLE BEAM MULTI-SPAN FOR 40 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-3"	5'-1"	4'-11"	4'-9"	4'-7"	4'-6"	4'-5"	4'-3"
	3	6'-1"	5'-10"	5'-7"	5'-5"	5'-3"	5'-2"	5'-0"	4'-11"
2x8	2	7'-3"	6'-11"	6'-8"	6'-6"	6'-4"	6'-2"	6'-0"	5'-10"
	3	8'-3"	7'-11"	7'-8"	7'-5"	7'-3"	7'-0"	6'-10"	6'-8"
2x10	2	9'-0"	8'-8"	8'-4"	8'-1"	7'-10"	7'-8"	7'-6"	7'-4"
	3	10'-2"	9'-10"	9'-6"	9'-2"	8'-11"	8'-8"	8'-6"	8'-3"
2x12	2	10'-7"	10'-2"	9'-10"	9'-6"	9'-3"	9'-0"	8'-9"	8'-7"
	3	12'-1"	11'-8"	11'-3"	10'-11"	10'-7"	10'-4"	10'-1"	9'-10"

ALLOWABLE BEAM MULTI-SPAN FOR 60 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-11"	5'-6"	5'-2"	4'-11"	4'-8"	4'-6"	4'-4"	4'-3"
	3	6'-9"	6'-4"	5'-11"	5'-8"	5'-5"	5'-2"	5'-0"	4'-10"
2x8	2	8'-1"	7'-6"	7'-1"	6'-9"	6'-5"	6'-2"	5'-11"	5'-9"
	3	9'-3"	8'-7"	8'-1"	7'-8"	7'-4"	7'-1"	6'-10"	6'-7"
2x10	2	10'-0"	9'-3"	8'-9"	8'-3"	7'-11"	7'-7"	7'-4"	7'-1"
	3	11'-5"	10'-7"	10'-0"	9'-6"	9'-1"	8'-9"	8'-5"	8'-2"
2x12	2	11'-10"	11'-0"	10'-4"	9'-10"	9'-5"	9'-0"	8'-9"	8'-5"
	3	13'-7"	12'-7"	11'-10"	11'-3"	10'-9"	10'-4"	10'-0"	9'-8"

ALLOWABLE BEAM MULTI-SPAN FOR 80 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-5"	5'-0"	4'-9"	4'-6"	4'-4"	4'-2"	4'-0"	3'-10"
	3	6'-3"	5'-9"	5'-5"	5'-2"	4'-11"	4'-9"	4'-7"	4'-5"
2x8	2	6'-1"	5'-11"	5'-8"	5'-6"	5'-4"	5'-2"	5'-1"	4'-11"
	3	8'-6"	7'-11"	7'-5"	7'-0"	6'-9"	6'-6"	6'-3"	6'-1"
2x10	2	9'-2"	8'-6"	8'-0"	7'-7"	7'-3"	7'-0"	6'-9"	6'-6"
	3	10'-6"	9'-9"	9'-2"	8'-8"	8'-4"	8'-0"	7'-8"	7'-6"
2x12	2	10'-10"	10'-1"	9'-6"	9'-0"	8'-7"	8'-3"	8'-0"	7'-9"
	3	12'-5"	11'-6"	10'-10"	10'-4"	9'-10"	9'-6"	9'-2"	8'-10"

ALLOWABLE BEAM MULTI-SPAN FOR 100 PSF LL, 10 PSF DL (L/360 DUE TO LL)

BEAM SIZE	# OF PLIES	MAXIMUM SPAN OF SUPPORTED JOISTS (DECK SPAN) (FT)							
		4	5	6	7	8	9	10	11
2x6	2	5'-1"	4'-8"	4'-5"	4'-2"	4'-0"	3'-10"	3'-9"	3'-7"
	3	5'-10"	5'-5"	5'-1"	4'-10"	4'-7"	4'-5"	4'-3"	4'-2"
2x8	2	6'-11"	6'-5"	6'-0"	5'-9"	5'-6"	5'-3"	5'-1"	4'-11"
	3	7'-11"	7'-4"	6'-11"	6'-7"	6'-3"	6'-0"	5'-10"	5'-8"
2x10	2	8'-6"	7'-11"	7'-5"	7'-1"	6'-9"	6'-6"	6'-3"	6'-1"
	3	9'-9"	9'-1"	8'-6"	8'-1"	7'-9"	7'-5"	7'-2"	7'-0"
2x12	2	10'-2"	9'-5"	8'-10"	8'-5"	8'-0"	7'-9"	7'-5"	7'-3"
	3	11'-7"	10'-9"	10'-2"	9'-7"	9'-2"	8'-10"	8'-6"	8'-3"

1. All ideas, engineering analysis and test data that have informed this installation guide are proprietary intellectual property (IP) and trade secrets (TS) of Owens Corning. This IP and TS will not be shared, as public regulatory officials are subject to Freedom of Information Act requests, making IP and TS provided to such officials part of the public domain when information is provided. Compliance with public records and trade secret legislation requires approval through the use of Listings, certified reports, Technical Evaluation Reports, duly authenticated reports, and/or research reports prepared by approved agencies and/or approved sources. The federal government and each state have a public records act.
2. The scope of work contained herein is limited to the specific engineering and/or code compliance analysis undertaken in this Research Report, which is also known as a duly authenticated report. This work has been prepared by an Approved Source, who is a Registered Design Professional (RDP). No representation or warranty is expressed or implied by this Research Report beyond the scope of work performed. Information, data, and/or analysis that becomes available in the future may justify modifications to this Research Report.
3. Approval of an RDP takes place when the RDP is properly licensed in Canada. Professional engineering laws grant the RDP the ability to undertake commerce applying engineering principles in their area of expertise.
4. Capitalized terms are defined in the building code, reference standards, TPI 1, the NDS, AISI S202, professional engineering law, Appendix A: Definitions/Commentary, and the National Building Code of Canada. Otherwise, terms not defined shall have ordinarily accepted meanings as the context implies.



HOW WE BUILD NOW™

Owens Corning
ONE OWENS CORNING PARKWAY
TOLEDO, OH 43659 USA

www.owenscorning.com/lumber



Pub. No. 10027125 OC Lumber Structural Framing Span Performance Table.

Printed in U.S.A. March 2024.

© 2024 Owens Corning. All Rights Reserved.

September 2024 | 5