

IB Series I-Joists  
IB EWP Inc.

PR-L330(C)  
Revised December 26, 2023

Products: IB Series Prefabricated Wood I-Joists  
IB EWP Inc., 480 rue Jocelyn-Bastille C.P. 10, Pohénégamook, Quebec, G0L 1J0, Canada  
[www.ibewp.com](http://www.ibewp.com)

1. Basis of the product report:
  - 2020 National Building Code of Canada (NBC): Clause 1.2.1.1 of Division A, and Clauses 4.1, 4.3.1.1, and 9.23.4.2 of Division B
  - CSA O86-19 Engineering Design in Wood
  - ASTM D5055-16 recognized in CAN/CSA O86-19
  - APA PRI-400CA Performance Standard for Residential I-Joists (Limit States Design)
  - APA Reports T2000P-42A, T2001P-53, T2001P-63, T2001P-78, T2002P-65, T2003P-17, T2003P-18A, T2003P-52, T2005P-01A, T2005P-40B, T2005P-99A, T2006P-36, T2006P-43, T2006P-53, T2008P-37, T2009P-34A, T2010P-06, T2010P-49A, T2013P-31, T2014P-10, T2019P-25A, T2019P-40, and T2021P-34, and other qualification data
2. Product description:

IB Series I-Joists covered in this report, as described in Table 1, are made with lumber flanges and OSB web in accordance with the in-plant manufacturing standard approved by APA.
3. Design properties:

Tables 2 through 4 list the Limit States Design (LSD) properties for IB Series I-Joists. The maximum design spans for IB Series I-Joists shall be in accordance with the recommendations provided by the manufacturer ([www.ibewp.com](http://www.ibewp.com)) and with APA Standard PRI-400CA, *Performance Standard for Residential I-Joists (Limit States Design)* ([www.apawood.org/resource-library](http://www.apawood.org/resource-library)), for depths contained in the PRI Series.
4. Product installation:

IB Series I-Joists shall be installed in accordance with the recommendations provided by the manufacturer (see link above). Permissible web holes and cantilever reinforcements shall be in accordance with the recommendations provided by the manufacturer.
5. Fire-rated assemblies:

Fire-rated assemblies shall be constructed in accordance with the recommendations provided by the manufacturer (see link above), APA Product Report PR-S330, or Table 9.10.3.1.-B of the NBC or the calculation method specified in Appendix D-2.3 of the NBC.
6. Limitations:
  - a) IB Series I-Joists shall be designed in accordance with the code using the design properties specified in this report.
  - b) IB Series I-Joists are limited to dry service conditions as defined in CSA O86, at which the average equilibrium moisture content of solid-sawn lumber over a year is 15% or less and does not exceed 19%.
  - c) All IB Series I-Joists are produced at IB EWP Inc. facility in Pohénégamook, Quebec, under a quality assurance program audited by APA.
  - d) This report is subject to re-examination in one year.

7. Identification:

The IB Series prefabricated wood I-joists described in this report are identified by a label bearing the manufacturer's name (IB EWP Inc.) and/or trademark, the APA assigned plant number (1135), the I-joist depth and series, the APA logo, the report number PR-L330 or PR-L330C, and a means of identifying the date of manufacture.

Table 1. Description of IB Series I-Joists<sup>(a)</sup>

Joist Series	Joist Depths, mm (in.)	Flanges			Web	
		Material	Dimension		Material	Thickness, mm (in.)
			Depth, mm (in.)	Width, mm (in.)		
IB400	200 – 406 (7-7/8 – 16)	Proprietary SPF	38 (1-1/2)	64 (2-1/2)	OSB	9.5 (3/8)
IB600	200 – 508 (7-7/8 – 20)	MSR	38 (1-1/2)	64 (2-1/2)	OSB	9.5 (3/8)
IB700	241 – 406 (9-1/2 – 16)	MSR	38 (1-1/2)	89 (3-1/2)	OSB	9.5 (3/8)
IB800	200 – 508 (7-7/8 – 20)	MSR	38 (1-1/2)	89 (3-1/2)	OSB	9.5 (3/8)
IB900x	200 – 610 (7-7/8 – 24)	MSR	38 (1-1/2)	89 (3-1/2)	OSB	11 (7/16)

<sup>(a)</sup> Referenced dimensions are nominal. Tolerances are as specified in the in-plant quality manual.

Table 2. Factored Resistances of IB Series I-Joists <sup>(a)</sup>

Joist Series	Joist Depth, mm (in.)	Also Qualified for	EI <sup>(b)</sup> , 10 <sup>6</sup> kN – mm <sup>2</sup> (10 <sup>6</sup> lbf-in. <sup>2</sup> )	M <sub>r</sub> <sup>(c)</sup> , N-m (lbf-ft)	V <sub>r</sub> <sup>(d)</sup> , N (lbf)	VLC <sub>r</sub> <sup>(e)</sup> , kN/m (plf)	K <sup>(f)</sup> , 10 <sup>6</sup> N (10 <sup>6</sup> lbf)
IB400	200 (7-7/8)	NA	353 (123)	5,040 (3,717)	8,109 (1,823)	42.3 (2,900)	18.24 (4.10)
	219 (8-5/8)	NA	439 (153)	5,626 (4,150)	8,109 (1,823)	42.3 (2,900)	19.97 (4.49)
	235 (9-1/4)	NA	531 (185)	6,122 (4,515)	8,109 (1,823)	42.3 (2,900)	21.40 (4.81)
	241 (9-1/2)	PRI-40	568 (198)	6,314 (4,657)	8,320 (1,870)	42.3 (2,900)	21.97 (4.94)
	286 (11-1/4)	NA	849 (296)	7,690 (5,672)	9,864 (2,218)	42.3 (2,900)	26.02 (5.85)
	302 (11-7/8)	PRI-40	964 (336)	8,186 (6,038)	10,391 (2,336)	42.3 (2,900)	27.49 (6.18)
	356 (14)	PRI-40	1,418 (494)	9,854 (7,268)	12,286 (2,762)	42.3 (2,900)	32.38 (7.28)
	406 (16)	PRI-40	1,931 (673)	11,422 (8,424)	14,042 (3,157)	42.3 (2,900)	37.01 (8.32)
IB600	200 (7-7/8)	NA	416 (145)	6,945 (5,123)	8,109 (1,823)	42.3 (2,900)	18.24 (4.10)
	219 (8-5/8)	NA	519 (181)	7,757 (5,721)	8,109 (1,823)	42.3 (2,900)	19.97 (4.49)
	235 (9-1/4)	NA	631 (220)	8,434 (6,221)	9,478 (2,131)	42.3 (2,900)	21.40 (4.81)
	241 (9-1/2)	PRI-60	674 (235)	8,704 (6,420)	9,619 (2,162)	42.3 (2,900)	21.97 (4.94)
	286 (11-1/4)	NA	1,022 (356)	10,598 (7,817)	10,637 (2,391)	42.3 (2,900)	26.02 (5.85)
	302 (11-7/8)	PRI-60	1,145 (399)	11,275 (8,316)	11,023 (2,478)	42.3 (2,900)	27.49 (6.18)
	356 (14)	PRI-60	1,679 (585)	13,575 (10,012)	12,286 (2,762)	42.3 (2,900)	32.38 (7.28)
	406 (16)	PRI-60	2,293 (799)	15,740 (11,609)	14,042 (3,157)	42.3 (2,900)	37.01 (8.32)
	457 (18)	NA	3,002 (1,046)	17,803 (13,131)	15,797 (3,551)	37.0 (2,538)	41.64 (9.36)
	508 (20)	NA	3,742 (1,304)	19,697 (14,528)	17,552 (3,946)	31.7 (2,175)	46.26 (10.40)
IB700	241 (9-1/2)	NA	775 (270)	8,941 (6,595)	9,829 (2,210)	42.3 (2,900)	21.97 (4.94)
	302 (11-7/8)	NA	1,311 (457)	11,590 (8,549)	11,374 (2,557)	42.3 (2,900)	27.49 (6.18)
	356 (14)	NA	1,917 (668)	13,958 (10,295)	12,743 (2,865)	42.3 (2,900)	32.38 (7.28)
	406 (16)	NA	2,600 (906)	16,179 (11,933)	14,042 (3,157)	42.3 (2,900)	37.01 (8.32)

(Footnotes on following page)

Table 2. Factored Resistances of IB Series I-Joists <sup>(a)</sup> (Continued)

Joist Series	Joist Depth, mm (in.)	Also Qualified for	EI <sup>(b)</sup> , 10 <sup>6</sup> kN – mm <sup>2</sup> (10 <sup>6</sup> lbf-in. <sup>2</sup> )	M <sub>r</sub> <sup>(c)</sup> , N-m (lbf-ft)	V <sub>r</sub> <sup>(d)</sup> , N (lbf)	VLC <sub>r</sub> <sup>(e)</sup> , kN/m (plf)	K <sup>(f)</sup> , 10 <sup>6</sup> N (10 <sup>6</sup> lbf)
IB800	200 (7-7/8)	NA	585 (204)	9,831 (7,252)	8,109 (1,823)	42.3 (2,900)	18.24 (4.10)
	219 (8-5/8)	NA	729 (254)	10,981 (8,100)	8,109 (1,823)	42.3 (2,900)	19.97 (4.49)
	235 (9-1/4)	NA	881 (307)	11,940 (8,806)	9,759 (2,194)	42.3 (2,900)	21.40 (4.81)
	241 (9-1/2)	NA	936 (326)	12,324 (9,090)	9,864 (2,218)	42.3 (2,900)	21.97 (4.94)
	286 (11-1/4)	NA	1,415 (493)	15,007 (11,069)	10,812 (2,431)	42.3 (2,900)	26.02 (5.85)
	302 (11-7/8)	PRI-80	1,584 (552)	15,965 (11,775)	11,163 (2,510)	42.3 (2,900)	27.49 (6.18)
	356 (14)	PRI-80	2,316 (807)	19,235 (14,187)	12,883 (2,896)	42.3 (2,900)	32.38 (7.28)
	406 (16)	PRI-80	3,139 (1,094)	22,302 (16,449)	14,533 (3,267)	42.3 (2,900)	37.01 (8.32)
	457 (18)	NA	4,147 (1,445)	25,109 (18,519)	16,148 (3,630)	38.3 (2,625)	41.64 (9.36)
	508 (20)	NA	5,163 (1,799)	27,917 (20,591)	18,254 (4,104)	34.4 (2,356)	46.26 (10.40)
IB900x	200 (7-7/8)	NA	620 (216)	12,097 (8,923)	9,548 (2,147)	42.3 (2,900)	22.42 (5.04)
	219 (8-5/8)	NA	775 (270)	13,507 (9,963)	10,285 (2,312)	42.3 (2,900)	24.55 (5.52)
	241 (9-1/2)	NA	976 (340)	15,164 (11,185)	11,163 (2,510)	42.3 (2,900)	27.04 (6.08)
	302 (11-7/8)	NA	1,644 (573)	19,651 (14,495)	13,515 (3,038)	42.3 (2,900)	33.80 (7.60)
	356 (14)	PRI-90	2,399 (836)	23,654 (17,447)	14,919 (3,354)	42.3 (2,900)	39.85 (8.96)
	406 (16)	PRI-90	3,246 (1,131)	27,431 (20,233)	16,358 (3,677)	42.3 (2,900)	45.55 (10.24)
	457 (18)	NA	4,227 (1,473)	31,016 (22,877)	17,622 (3,962)	38.3 (2,625)	51.24 (11.52)
	508 (20)	NA	5,349 (1,864)	34,331 (25,322)	18,921 (4,254)	34.4 (2,356)	56.94 (12.80)
	559 (22)	NA	6,612 (2,304)	37,611 (27,742)	20,185 (4,538)	26.5 (1,813)	62.63 (14.08)
	610 (24)	NA	8,018 (2,794)	40,847 (30,129)	21,484 (4,830)	26.5 (1,813)	68.32 (15.36)

<sup>(a)</sup> All factored resistance values include the resistance factor specified in CSA-O86. The tabulated values are for the standard term of load duration (K<sub>D</sub> = 1.0). All values, except for EI, VLC<sub>r</sub>, and K, are permitted to be adjusted for other load durations as permitted by the code.

<sup>(b)</sup> Bending stiffness (EI) of the I-joist

<sup>(c)</sup> Factored moment resistance (M<sub>r</sub>) of the I-joist.

<sup>(d)</sup> Factored shear resistance (V<sub>r</sub>) of the I-joist.

<sup>(e)</sup> Factored uniform vertical load resistance (VLC<sub>r</sub>) of the I-joist.

(f) Coefficient of shear deflection (K). For calculating uniform load and center-point load deflections of the I-joists in a simple-span application, use Eqs. 1 and 2.

$$\text{Uniform Load:} \quad \delta = \frac{5 \omega L^4}{384 EI} + \frac{\omega L^2}{K} \quad [1]$$

$$\text{Center-Point Load:} \quad \delta = \frac{PL^3}{48 EI} + \frac{2 PL}{K} \quad [2]$$

where  $\delta$  = calculated deflection (mm or in.),  $\omega$  = unfactored uniform load (kN/mm or lbf/in.),  
 $P$  = unfactored concentrated load (kN or lbf),  $L$  = design span (mm or in.),  
 $EI$  = bending stiffness of the I-joist (kN-mm<sup>2</sup> or lbf-in.<sup>2</sup>), and  $K$  = coefficient of shear deflection (kN or lbf).

Table 3. Additional Factored Resistances of IB Series I-Joists (a,b,c)

Joist Series	Joist Depth, mm (in.)	Also Qualified for	Factored End Reactions, N (lbf)									
			38 mm (1-1/2 in.) Bearing		44 mm (1-3/4 in.) Bearing		70 mm (2-3/4 in.) Bearing		89 mm (3-1/2 in.) Bearing		102 mm (4 in.) Bearing	
			No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.
IB400	200 (7-7/8)	NA	6,705 (1,507)	7,407 (1,665)	6,845 (1,539)	7,477 (1,681)	7,407 (1,665)	7,758 (1,744)	7,828 (1,760)	7,969 (1,792)	8,109 (1,823)	8,109 (1,823)
	219 (8-5/8)	NA	7,477 (1,681)	7,793 (1,752)	7,547 (1,697)	7,828 (1,760)	7,793 (1,752)	7,934 (1,784)	7,969 (1,792)	8,039 (1,807)	8,109 (1,823)	8,109 (1,823)
	235 (9-1/4)	NA	7,793 (1,752)	8,109 (1,823)	7,828 (1,760)	8,109 (1,823)	8,109 (1,823)	8,109 (1,823)	8,109 (1,823)	8,109 (1,823)	8,109 (1,823)	8,109 (1,823)
	241 (9-1/2)	PRI-40	7,863 (1,768)	8,320 (1,870)	7,934 (1,784)	8,320 (1,870)	8,320 (1,870)	8,320 (1,870)	8,320 (1,870)	8,320 (1,870)	8,320 (1,870)	8,320 (1,870)
	286 (11-1/4)	NA	8,249 (1,854)	9,513 (2,139)	8,460 (1,902)	9,548 (2,146)	9,408 (2,115)	9,864 (2,218)	9,864 (2,218)	9,864 (2,218)	9,864 (2,218)	9,864 (2,218)
	302 (11-7/8)	PRI-40	8,425 (1,894)	9,970 (2,241)	8,636 (1,941)	10,040 (2,257)	9,619 (2,162)	10,391 (2,336)	10,285 (2,312)	10,391 (2,336)	10,391 (2,336)	10,391 (2,336)
	356 (14)	PRI-40	8,846 (1,989)	11,444 (2,573)	9,092 (2,044)	11,549 (2,596)	10,215 (2,296)	12,286 (2,762)	10,882 (2,446)	12,286 (2,762)	10,882 (2,446)	12,286 (2,762)
	406 (16)	PRI-40	9,303 (2,091)	12,813 (2,880)	9,513 (2,139)	12,953 (2,912)	10,215 (2,296)	14,042 (3,157)	10,882 (2,446)	14,042 (3,157)	10,882 (2,446)	14,042 (3,157)
IB600	200 (7-7/8)	NA	6,705 (1,507)	7,407 (1,665)	6,845 (1,539)	7,477 (1,681)	7,407 (1,665)	7,758 (1,744)	7,828 (1,760)	7,969 (1,792)	8,109 (1,823)	8,109 (1,823)
	219 (8-5/8)	NA	7,477 (1,681)	7,793 (1,752)	7,547 (1,697)	7,828 (1,760)	7,793 (1,752)	7,934 (1,784)	7,969 (1,792)	8,039 (1,807)	8,109 (1,823)	8,109 (1,823)
	235 (9-1/4)	NA	7,793 (1,752)	8,109 (1,823)	7,934 (1,784)	9,478 (2,131)	8,109 (1,823)	9,478 (2,131)	8,109 (1,823)	9,478 (2,131)	8,109 (1,823)	9,478 (2,131)
	241 (9-1/2)	PRI-60	7,863 (1,768)	8,320 (1,870)	8,004 (1,799)	9,619 (2,162)	8,320 (1,870)	9,619 (2,162)	8,320 (1,870)	9,619 (2,162)	8,320 (1,870)	9,619 (2,162)
	286 (11-1/4)	NA	8,249 (1,854)	9,513 (2,139)	8,530 (1,918)	10,637 (2,391)	9,408 (2,115)	10,637 (2,391)	9,864 (2,218)	10,637 (2,391)	9,864 (2,218)	10,637 (2,391)
	302 (11-7/8)	PRI-60	8,425 (1,894)	9,970 (2,241)	8,706 (1,957)	11,023 (2,478)	9,619 (2,162)	11,023 (2,478)	10,285 (2,312)	11,023 (2,478)	10,391 (2,336)	11,023 (2,478)
	356 (14)	PRI-60	8,846 (1,989)	11,444 (2,573)	9,373 (2,107)	12,286 (2,762)	10,250 (2,304)	12,286 (2,762)	10,882 (2,446)	12,286 (2,762)	10,882 (2,446)	12,286 (2,762)
	406 (16)	PRI-60	9,303 (2,091)	12,813 (2,880)	9,970 (2,241)	13,515 (3,038)	10,496 (2,360)	13,831 (3,109)	10,882 (2,446)	14,042 (3,157)	10,882 (2,446)	14,042 (3,157)
	457 (18)	NA	NA	NA	10,566 (2,375)	14,709 (3,307)	10,742 (2,415)	15,340 (3,449)	10,882 (2,446)	15,797 (3,551)	10,882 (2,446)	15,797 (3,551)
	508 (20)	NA	NA	NA	10,882 (2,446)	15,867 (3,567)	10,882 (2,446)	16,815 (3,780)	10,882 (2,446)	17,552 (3,946)	10,882 (2,446)	17,552 (3,946)

(Footnotes on the following page)

Table 3. Additional Factored Resistances of IB Series I-Joists <sup>(a,b,c)</sup> (Continued)

Joist Series	Joist Depth, mm (in.)	Also Qualified for	Factored End Reactions, N (lbf)									
			38 mm (1-1/2 in.) Bearing		44 mm (1-3/4 in.) Bearing		70 mm (2-3/4 in.) Bearing		89 mm (3-1/2 in.) Bearing		102 mm (4 in.) Bearing	
			No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.
IB700	241 (9-1/2)	NA	8,074 (1,815)	9,583 (2,155)	8,249 (1,855)	9,619 (2,162)	8,952 (2,012)	9,724 (2,186)	9,478 (2,131)	9,794 (2,202)	9,829 (2,210)	9,829 (2,210)
	302 (11-7/8)	NA	8,671 (1,949)	10,988 (2,470)	8,881 (1,997)	11,058 (2,486)	9,654 (2,170)	11,198 (2,518)	10,285 (2,312)	11,304 (2,541)	10,672 (2,399)	11,374 (2,557)
	356 (14)	NA	9,232 (2,076)	12,251 (2,754)	9,443 (2,123)	12,322 (2,770)	10,250 (2,304)	12,532 (2,817)	10,952 (2,462)	12,673 (2,849)	11,409 (2,565)	12,743 (2,865)
	406 (16)	NA	9,724 (2,186)	13,445 (3,023)	9,970 (2,241)	13,515 (3,038)	10,917 (2,454)	14,042 (3,157)	11,619 (2,612)	14,042 (3,157)	12,111 (2,723)	14,042 (3,157)
IB800	200 (7-7/8)	NA	6,705 (1,507)	7,407 (1,665)	6,845 (1,539)	7,477 (1,681)	7,407 (1,665)	7,758 (1,744)	7,828 (1,760)	7,969 (1,792)	8,109 (1,823)	8,109 (1,823)
	219 (8-5/8)	NA	7,477 (1,681)	7,793 (1,752)	7,547 (1,697)	7,828 (1,760)	7,793 (1,752)	7,934 (1,784)	7,969 (1,792)	8,039 (1,807)	8,109 (1,823)	8,109 (1,823)
	235 (9-1/4)	NA	7,793 (1,752)	8,109 (1,823)	7,934 (1,784)	9,689 (2,178)	8,109 (1,823)	9,689 (2,178)	8,109 (1,823)	9,689 (2,178)	8,109 (1,823)	9,759 (2,194)
	241 (9-1/2)	NA	7,863 (1,768)	8,320 (1,870)	8,004 (1,799)	9,864 (2,218)	8,320 (1,870)	9,864 (2,218)	8,320 (1,870)	9,864 (2,218)	8,320 (1,870)	9,864 (2,218)
	286 (11-1/4)	NA	8,249 (1,854)	9,513 (2,139)	8,530 (1,918)	10,812 (2,431)	9,408 (2,115)	10,812 (2,431)	9,864 (2,218)	10,812 (2,431)	9,864 (2,218)	10,812 (2,431)
	302 (11-7/8)	PRI-80	8,846 (1,989)	11,163 (2,510)	9,057 (2,036)	11,163 (2,510)	9,864 (2,218)	11,163 (2,510)	10,461 (2,352)	11,163 (2,510)	10,882 (2,446)	11,163 (2,510)
	356 (14)	PRI-80	9,373 (2,107)	12,602 (2,833)	9,583 (2,155)	12,637 (2,841)	10,321 (2,320)	12,743 (2,865)	10,882 (2,446)	12,848 (2,889)	11,233 (2,525)	12,883 (2,896)
	406 (16)	PRI-80	9,899 (2,226)	13,971 (3,141)	10,075 (2,265)	14,042 (3,157)	10,742 (2,415)	14,252 (3,204)	10,882 (2,446)	14,428 (3,244)	11,233 (2,525)	14,533 (3,267)
	457 (18)	NA	NA	NA	10,566 (2,376)	15,937 (3,583)	10,742 (2,415)	16,043 (3,610)	10,882 (2,446)	16,148 (3,630)	11,233 (2,525)	16,148 (3,630)
	508 (20)	NA	NA	NA	10,882 (2,447)	17,271 (3,883)	10,882 (2,446)	17,833 (4,010)	10,882 (2,446)	18,254 (4,104)	11,584 (2,604)	18,254 (4,104)

(Footnotes on the following page)

Table 3. Additional Factored Resistances of IB Series I-Joists <sup>(a,b,c)</sup> (Continued)

Joist Series	Joist Depth, mm (in.)	Also Qualified for	Factored End Reactions, N (lbf)									
			38 mm (1-1/2 in.) Bearing		44 mm (1-3/4 in.) Bearing		70 mm (2-3/4 in.) Bearing		89 mm (3-1/2 in.) Bearing		102 mm (4 in.) Bearing	
			No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.	No B.S.	B.S.
IB900x	200 (7-7/8)	NA	8,811 (1,981)	8,952 (2,012)	8,881 (1,997)	9,022 (2,028)	9,197 (2,068)	9,267 (2,084)	9,408 (2,115)	9,443 (2,123)	9,548 (2,147)	9,548 (2,147)
	219 (8-5/8)	NA	9,022 (2,028)	9,373 (2,107)	9,162 (2,060)	9,478 (2,131)	9,654 (2,170)	9,864 (2,218)	10,005 (2,249)	10,110 (2,273)	10,250 (2,304)	10,285 (2,312)
	241 (9-1/2)	NA	9,267 (2,084)	9,864 (2,218)	9,443 (2,123)	10,005 (2,249)	10,180 (2,289)	10,531 (2,368)	10,707 (2,407)	10,917 (2,454)	11,058 (2,486)	11,163 (2,510)
	302 (11-7/8)	NA	9,829 (2,210)	11,233 (2,525)	9,829 (2,210)	11,479 (2,581)	11,444 (2,573)	12,392 (2,786)	12,567 (2,825)	13,059 (2,936)	13,234 (2,975)	13,515 (3,038)
	356 (14)	PRI-90	9,829 (2,210)	12,637 (2,841)	9,829 (2,210)	12,637 (2,841)	11,444 (2,573)	13,129 (2,952)	12,673 (2,849)	13,761 (3,094)	13,234 (2,975)	14,919 (3,354)
	406 (16)	PRI-90	9,970 (2,241)	13,971 (3,141)	10,075 (2,265)	14,042 (3,157)	11,514 (2,588)	15,376 (3,457)	12,673 (2,849)	16,358 (3,677)	13,234 (2,975)	16,358 (3,677)
	457 (18)	NA	NA	NA	10,566 (2,375)	15,937 (3,583)	11,233 (2,525)	16,885 (3,796)	11,760 (2,644)	17,622 (3,962)	13,234 (2,975)	17,622 (3,962)
	508 (20)	NA	NA	NA	10,672 (2,399)	17,341 (3,898)	11,233 (2,525)	18,184 (4,088)	11,760 (2,644)	18,816 (4,230)	13,234 (2,975)	18,921 (4,254)
	559 (22)	NA	NA	NA	10,321 (2,320)	18,219 (4,096)	11,128 (2,502)	19,132 (4,301)	11,760 (2,644)	19,799 (4,451)	13,094 (2,944)	20,185 (4,538)
	610 (24)	NA	NA	NA	10,321 (2,320)	20,220 (4,546)	11,128 (2,502)	20,536 (4,617)	11,760 (2,644)	20,782 (4,672)	12,788 (2,873)	21,484 (4,830)

- (a) The tabulated values are for the standard term of load duration ( $K_D = 1.0$ ). All values are permitted to be adjusted for other load durations as permitted by the code provided that the adjusted values do not exceed the factored compressive resistance perpendicular to grain ( $Q_c$ ) of the bearing plate supporting the I-joist in accordance with CSA O86.
- (b) Interpolation between bearing lengths is permitted.
- (c) Bearing stiffeners shall be installed in accordance with the recommendations provided by the manufacturer.



Table 4. Additional Factored Resistances of IB Series I-Joists <sup>(a,b,c)</sup>

Joist Series	Joist Depth, mm (in.)	Permitted to Be Labeled as	Factored Intermediate Reactions, N (lbf)			
			89 mm (3-1/2 in.) Bearing		140 mm (5-1/2 in) Bearing	
			No Stiffeners	Stiffeners	No Stiffeners	Stiffeners
IB400	200 (7-7/8)	NA	15,165 (3,409)	15,481 (3,480)	16,218 (3,646)	16,499 (3,709)
	219 (8-5/8)	NA	15,165 (3,409)	16,043 (3,607)	16,218 (3,646)	16,639 (3,741)
	235 (9-1/4)	NA	15,165 (3,409)	16,534 (3,717)	16,218 (3,646)	16,639 (3,741)
	241 (9-1/2)	PRI-40	15,165 (3,409)	16,639 (3,741)	16,639 (3,741)	16,639 (3,741)
	286 (11-1/4)	NA	17,552 (3,946)	19,623 (4,411)	19,728 (4,435)	19,728 (4,435)
	302 (11-7/8)	PRI-40	17,552 (3,946)	19,658 (4,419)	19,728 (4,435)	20,782 (4,672)
	356 (14)	PRI-40	17,552 (3,946)	19,833 (4,459)	21,765 (4,893)	24,257 (5,453)
	406 (16)	PRI-40	17,552 (3,946)	20,009 (4,498)	21,765 (4,893)	25,626 (5,761)
IB600	200 (7-7/8)	NA	15,165 (3,409)	15,481 (3,480)	16,218 (3,646)	16,499 (3,709)
	219 (8-5/8)	NA	15,165 (3,409)	16,043 (3,607)	16,218 (3,646)	17,517 (3,938)
	235 (9-1/4)	NA	15,165 (3,409)	18,956 (4,261)	16,218 (3,646)	18,956 (4,261)
	241 (9-1/2)	PRI-60	15,165 (3,409)	19,237 (4,325)	16,639 (3,741)	19,237 (4,325)
	286 (11-1/4)	NA	17,552 (3,946)	21,273 (4,782)	19,728 (4,435)	21,273 (4,782)
	302 (11-7/8)	PRI-60	17,552 (3,946)	21,589 (4,853)	19,728 (4,435)	22,045 (4,956)
	356 (14)	PRI-60	17,552 (3,946)	22,572 (5,074)	21,765 (4,893)	24,257 (5,453)
	406 (16)	PRI-60	17,552 (3,946)	23,520 (5,288)	21,765 (4,893)	25,626 (5,761)
	457 (18)	NA	17,552 (3,946)	24,046 (5,406)	21,765 (4,893)	26,223 (5,895)
	508 (20)	NA	17,552 (3,946)	24,222 (5,445)	21,765 (4,893)	26,820 (6,029)
IB700	241 (9-1/2)	NA	17,552 (3,946)	19,658 (4,420)	17,552 (3,946)	19,658 (4,420)
	302 (11-7/8)	NA	17,552 (3,946)	22,747 (5,114)	20,431 (4,593)	22,747 (5,114)
	356 (14)	NA	17,552 (3,946)	25,486 (5,730)	21,765 (4,893)	25,486 (5,730)
	406 (16)	NA	17,552 (3,946)	28,083 (6,314)	21,765 (4,893)	28,083 (6,314)
IB800	200 (7-7/8)	NA	15,235 (3,425)	15,481 (3,480)	16,218 (3,646)	16,499 (3,709)
	219 (8-5/8)	NA	15,270 (3,433)	16,043 (3,607)	16,218 (3,646)	17,517 (3,938)
	235 (9-1/4)	NA	16,218 (3,646)	18,956 (4,261)	16,218 (3,646)	18,956 (4,261)
	241 (9-1/2)	NA	17,341 (3,898)	19,237 (4,325)	17,341 (3,898)	19,237 (4,325)
	286 (11-1/4)	NA	19,728 (4,435)	21,273 (4,782)	19,728 (4,435)	21,273 (4,782)
	302 (11-7/8)	PRI-80	19,764 (4,443)	22,326 (5,019)	22,045 (4,956)	22,326 (5,019)
	356 (14)	PRI-80	21,765 (4,893)	25,275 (5,682)	23,239 (5,225)	25,731 (5,785)
	406 (16)	PRI-80	21,765 (4,893)	28,083 (6,313)	23,450 (5,272)	28,785 (6,472)
	457 (18)	NA	21,765 (4,893)	29,663 (6,669)	21,765 (4,893)	29,663 (6,669)
	508 (20)	NA	21,765 (4,893)	30,541 (6,866)	21,765 (4,893)	30,541 (6,866)
IB900x	200 (7-7/8)	NA	19,904 (4,475)	21,765 (4,893)	20,044 (4,506)	22,116 (4,972)
	219 (8-5/8)	NA	20,606 (4,633)	22,116 (4,972)	20,711 (4,656)	22,396 (5,035)
	241 (9-1/2)	NA	21,378 (4,806)	22,502 (5,059)	21,484 (4,830)	22,712 (5,106)
	302 (11-7/8)	NA	23,555 (5,295)	23,555 (5,295)	23,555 (5,295)	23,555 (5,295)
	356 (14)	PRI-90	23,555 (5,295)	25,275 (5,682)	23,555 (5,295)	25,731 (5,785)
	406 (16)	PRI-90	23,555 (5,295)	28,083 (6,314)	23,555 (5,295)	28,785 (6,472)
	457 (18)	NA	23,555 (5,295)	29,979 (6,740)	23,555 (5,295)	32,577 (7,324)
	508 (20)	NA	23,555 (5,295)	32,296 (7,260)	23,555 (5,295)	33,770 (7,592)
	559 (22)	NA	23,555 (5,295)	34,086 (7,663)	23,555 (5,295)	34,191 (7,687)
	610 (24)	NA	23,555 (5,295)	34,577 (7,774)	23,555 (5,295)	34,577 (7,774)

- (a) The tabulated values are for the standard term of load duration ( $K_D = 1.0$ ). All values are permitted to be adjusted for other load durations as permitted by the code provided that the adjusted values do not exceed the factored compressive resistance perpendicular to grain ( $Q_r$ ) of the bearing plate supporting the I-joist in accordance with CSA O86.
- (b) Interpolation between bearing lengths is permitted.
- (c) Bearing stiffeners shall be installed in accordance with the recommendations provided by the manufacturer.

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