



Boise Cascade®
ENGINEERED WOOD PRODUCTS

AJS 24 FMJ

Fire Protection Solution

Safety Comes Standard

Get a code-approved solution with AJS® 24 FMJ - the only one-step I-joist that meets fire protection requirements through ICC-ES. Built on the trusted strength of AJS joists, they help provide peace of mind to builders and homeowners alike by providing a complete floor system that's quiet, safe, and made to last.

AJS FMJ ADVANTAGES

- Code approved thru ICC-ES® ESR-1144 and meets acceptance criteria for fire protection of residential floors
- Has passed the AC14/ASTM E119 fire test as required to establish equivalency to dimension lumber joists per IRC R302.13
- Proprietary MSR (machine stress rated) lumber delivers strength and consistency that help keep floors flat and quiet
- Web holes for HVAC and mechanicals may be cut using the same guidelines as non-protected joists
- No specific top or bottom orientation to help ensure correct framing every time
- 2×4 flange means longer, stronger spans and a wider nailing surface
- More lightweight than the equivalent 2x10 or 2x12



AJS® 24 FMJ DESIGN PROPERTIES



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Joist Depth	Weight (PLF)	Moment (ft-lbs)	EI × 10 ⁶ (lb-in ²)	K × 10 ⁶ (lb ²)	Shear (lbs)	End Reaction (lbs)				Intermediate Reaction (lbs)			
						1½" Bearing		3½" Bearing		3½" Bearing		5¼" Bearing	
						No WS (1)	WS (2)	No WS (1)	WS (2)	No WS (1)	WS (2)	No WS (1)	WS (2)
9½"	3.4	4,005	270	5.3	1,160	950	1,240	1,175	1,480	2,600	2,850	2,600	2,850
11⅞"	3.7	5,190	457	6.7	1,490	955	1,335	1,215	1,595	2,690	3,190	2,690	3,190
14"	4.0	6,250	670	7.9	1,790	960	1,420	1,250	1,700	2,770	3,500	2,770	3,500
16"	4.3	7,245	911	9.1	2,065	970	1,500	1,285	1,800	2,850	3,800	2,850	3,800

(1) No web stiffeners required.

(2) Web stiffeners required.

AJS® 24 FMJ RESIDENTIAL FLOOR SPAN TABLE

40/12 PSF Loading

Joist Depth	★★★ THREE STAR L/480 ★★★				★★★★ FOUR STAR L/960 ★★★★				CAUTION	* MINIMUM STIFFNESS ALLOWED BY CODE *	CAUTION	
	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9½"	19'-11"	18'-2"	17'-2"	16'-0"	15'-6"	14'-2"	13'-4"	12'-4"	22'-0"	20'-1"	19'-0"	17'-5"
11⅞"	23'-8"	21'-7"	20'-5"	18'-3"	18'-6"	16'-10"	15'-10"	14'-8"	26'-2"	23'-11"	22'-3"	18'-3"
14"	26'-11"	24'-6"	22'-11"	18'-4"	21'-0"	19'-1"	18'-0"	16'-8"	29'-9"	26'-9"	22'-11"	18'-4"
16"	29'-9"	27'-2"	23'-2"	18'-6"	23'-3"	21'-2"	19'-11"	18'-6"	32'-11"	27'-10"	23'-2"	18'-6"

- ▶ Tables are based on
 - 23/32" minimum plywood/OSB rated sheathing glued and nailed to joists.
 - the most restrictive of simple or multiple span applications. Analyze multiple span joists with BC Calc® sizing software if the length of any span is less than half the length of an adjacent span.
 - maximum allowable clear distance between supports.
 - minimum bearing lengths without web stiffeners for joist depths of 16" and less.
- ▶ Floor tile will increase dead load and may require specific deflection limits, contact Boise Cascade EWP Engineering for further information.
- ▶ This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with the BC Calc® sizing software.

THE BOISE CASCADE DIFFERENCE

With Boise Cascade, you get more than reliable engineered wood products — you get results backed by people and resources that support your success. For over 60 years, we've earned the trust of building professionals through our high-quality products, quick and dependable distribution network, technology solutions, and unparalleled support that help keep projects moving and customers satisfied.

- Full line of EWP solutions for single-family, multifamily and light commercial projects
- Reliable nationwide distribution network
- More than 60 years of proven performance
- Peace of mind with our limited lifetime warranty
- Industry-leading SawTek® automated saw system
- EWP product support from knowledgeable engineers
- Boise Cascade suite of software helps design, size, and analyze projects



Boise Cascade®
ENGINEERED WOOD PRODUCTS

LIMITED
LIFETIME
WARRANTY

WHAT YOU'RE MADE OF MATTERS