

**I-JOISTS**  
**Made Better**  
even



APPROVED PRODUCTS

## PKI RESIDENTIAL I-JOIST GUIDE

PKI 10, PKI 20, PKI 23, PKI 35+, PKI 40, PKI 50  
USA

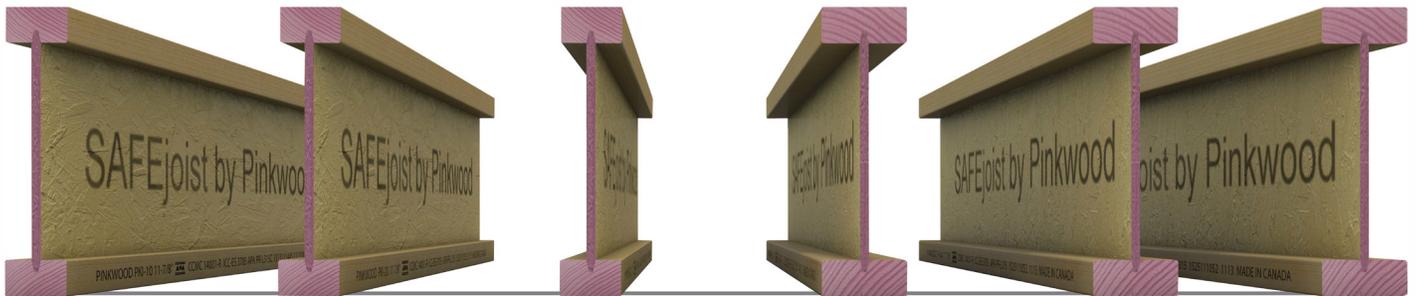


## WHY ARE BUILDERS DEMANDING PKI JOISTS IN THEIR HOUSES?

1. PK Shield web protection, applied to PKI joists, provides superior fire and moisture protection and contains a broad spectrum fungicide for added mildew resistance on the dried film.
2. Pinkwood Ltd. produces a range of I-Joist series and depths of 9 1/2" to 24" to satisfy all commonly used design criteria.
3. Framers prefer working with PKI Joists for ease of handling, wide-flange nailing, and side nailing capabilities.
4. By being manufactured in Western Canada, Pinkwood is able to be extremely competitive in the US market.
5. Home owners enjoy Pinkwood's SAFEjoist series for the peace of mind offered by the added fire and mildew protection.
6. Pinkwood contributes a portion of all SAFEjoist sales to breast cancer research.

## PKI SERIES

PKI Joists series are manufactured with either 2x3" (PKI 10, 20, 23) or 2x4" (PKI 35+, 40, 50) flanges which have a specific proprietary lumber grade. Having only two flange sizes results in simplified selection of hangers and fasteners and thereby reduces the number of component SKU's required by the dealer.



### PKI 10 SERIES

Depths: 9 1/2", 11 7/8", 14"  
Chord Size: 2 1/2" x 1 1/2"  
Webstock: 3/8" OSB

### PKI 20 SERIES

Depths: 9 1/2", 11 7/8", 14", 16"  
2 1/2" x 1 1/2"  
3/8" OSB

### PKI 23 SERIES

Depths: 9 1/2", 11 7/8", 14", 16"  
2 1/2" x 1 1/2"  
7/16" OSB

### PKI 35+ SERIES

Depths: 9 1/2", 11 7/8", 14", 16"  
3 1/2" x 1 1/2"  
3/8" OSB

### PKI 40 SERIES

Depths: 9 1/2", 11 7/8", 14", 16"-24"  
3 1/2" x 1 1/2"  
3/8" OSB

### PKI 50 SERIES

Depths: 11 7/8", 14", 16"-24"  
3 1/2" x 1 1/2"  
7/16" OSB

Features		Benefits
Wide Nailing	✓	Easy diaphragm nailing
Side Nailing	✓	No structural issues regarding bridging elements, sprinkler attachments, pot lights etc
End Nailing	✓	Rim attachment at sill plate, three nails in close proximity can cause issues with LVL flange
Fire Rated	✓	E84 Class B or higher flame spread rating
Enhanced Moisture Protection	✓	Reduces risk of moisture degradation to OSB web
Enhanced Mildew Protection	✓	Specifically designed for wet climates to inhibit mildew growth
Holmes Approved	✓	Mike Holmes actively promoting protected EWP
Made in Canada	✓	Currency disparity makes for extremely cost competitive floor solution
Socially Responsible	✓	Supporting breast cancer research

Member of

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THE ENGINEERED  
WOOD ASSOCIATION

## 40 PSF LL/ 10 PSF DL (L/480) - 23/32" SHEATHING GLUED & NAILED

JOIST DEPTH	JOIST TYPE	Simple Spans (ft-in)			
		O/C SPACING			
		12"	16"	19.2"	24"
9 1/2"	PKI10	17'- 6"	16'- 0"	15'- 2"	13'- 9"
	PKI20	18'- 2"	16'- 7"	15'- 8"	14'- 8"
	PKI23	18'- 7"	17'- 0"	16'- 1"	15'- 0"
	PKI35Plus	19'- 2"	17'- 7"	16'- 7"	15'- 5"
	PKI40	21'- 2"	19'- 3"	18'- 2"	16'- 11"
11 7/8"	PKI10	20'- 9"	19'- 0"	17'- 7"	15'- 9"
	PKI20	21'- 7"	19'- 9"	18'- 8"	17'- 4"
	PKI23	22'- 0"	20'- 2"	19'- 0"	17'- 9"
	PKI35Plus	22'- 10"	20'- 10"	19'- 8"	18'- 4"
	PKI40	25'- 2"	22'- 11"	21'- 7"	20'- 1"
14"	PKI10	23'- 6"	21'- 2"	19'- 3"	17'- 3"
	PKI20	24'- 5"	22'- 4"	21'- 0"	18'- 9"
	PKI23	25'- 0"	22'- 10"	21'- 7"	20'- 1"
	PKI35Plus	25'- 10"	23'- 7"	22'- 3"	20'- 5"
	PKI40	28'- 6"	25'- 11"	24'- 6"	22'- 9"
16"	PKI10	28'- 8"	26'- 1"	24'- 7"	22'- 11"
	PKI20	27'- 1"	24'- 8"	22'- 6"	20'- 1"
	PKI23	27'- 7"	25'- 3"	23'- 10"	22'- 0"
	PKI35Plus	28'- 7"	26'- 1"	24'- 6"	20'- 9"
	PKI40	31'- 6"	28'- 8"	27'- 0"	25'- 2"
PKI50	31'- 8"	28'- 10"	27'- 2"	25'- 4"	

### NOTES:

- Allowable design span applicable to simple and multiple-span residential floor construction with loads as indicated above tables. The live load deflection is limited to span/480.
- Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PS 1, PS 2, CSA O325, or CSA O437. Adhesive shall meet ASTM D3498 or APA Specification AFG-01.
- Minimum end bearing length shall be 1-1/2 inches for 9 1/2" to 16" deep I-joists and 2-1/2 inches for 18" to 24" deep I-joists.
- Pink shaded** spans require 2-1/2" end bearing for 9 1/2" to 16" deep I-joists and 4" end bearing for 18" to 24" deep I-joists.
- Bearing stiffeners are not required for end bearings when I-joists are used with the spans and spacings given in this table, except as required by hanger manufacturers.
- For multiple spans, underlined spans require 3-1/2" intermediate bearing with web stiffener, all other span require 3-1/2" intermediate bearing without web stiffener.

\* Fire performance levels apply to the I-Joist web only.

### FIRE RESISTANCE

All PKI joists are available with either a Class A or B flame spread rating as tested by ASTM E84. This significantly reduces the chance of ignition and limits the spread of fire should one start.

Pinkwood has successfully tested a proprietary IRC R501.3 equivalency assembly that offers builder a much more cost effective solution to other approved methods. Please contact Pinkwood for more information.



### FRAMERS CHOICE

All PKI Joists are manufactured using solid sawn SPF flange material making them far more robust and framer friendly for handling and installation.

Common problems often associated with LVL are splintering when handling and de-lamination of the veneers especially as a result of normal on-site nailing practices.

The reduced width of the LVL flange can also be problematic for achieving proper nail penetration and angles which can result in reduced capacities at the connection points from what was designed.

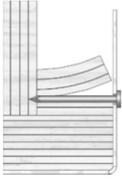
When the LVL flange is compromised, the I-Joists design capacities are significantly reduced. This can often go unseen as it occurs in blind connection points such as behind rim attachments and hidden by the hangers.



APPROVED PRODUCTS

## Common Nailing Errors

### **Wrong Angle**



When a nail is driven into the bottom flange of the wood I-Joist parallel to the glue lines, separation of veneers can occur which substantially reduces the design loads of the connection.

USP installation guide USP339-141

With the solid sawn flanges of our PKI Series I-Joists, end-nailing, side-nailing, and diaphragm nailing can all be achieved without compromising the flange integrity. This gives confidence in the fact that the in service floor will perform as designed.

## DESIGN SOFTWARE



Pinkwood's PKI I-Joists are available in CSD, the leading third party software suite that makes it seamless for engineers and design professionals to offer their clients the benefits of the PKI product line with minimal effort and maximum flexibility.

## ENGINEERED FLOOR SYSTEM GUARANTEE

PinkWood joists are manufactured to meet or exceed the rigorous engineering and testing standards set by every major code approval agency in North America.

All PinkWood joist products are unconditionally guaranteed to be free of manufacturing defects. PinkWood Ltd. guarantees that its PinkWood joist products, when installed and handled as per the PKjoist installation guide, will perform in accordance with the published structural specifications.

In the unlikely event that a problem occurs due to a manufacturing defect, PinkWood Ltd. shall be given a reasonable opportunity to inspect the PinkWood product on site. If this evaluation reveals a problem due to manufacturing defects, the situation shall be promptly corrected.

Please feel free to contact a representative of PinkWood Ltd. for specific details and limitations of this guarantee.



A product of PinkWood Ltd. Visit us at [www.PinkWood.ca](http://www.PinkWood.ca)  
5929, 6th Street NE Calgary, Alberta, Canada T2K 5R5

