

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
Housing - Federal Housing Commissioner

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(Supersedes issue dated  
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TO: DIRECTORS, SINGLE FAMILY HOCs  
DIRECTORS, MULTIFAMILY HUBs

ISSUE DATE

January 10, 2006

REVIEW DATE

January 10, 2009

SUBJECT: 1. Product James Hardie Exterior Siding and Soffit and Interior Wall Backerboard  
and Lining Board

2. Name and address  
of Manufacturer James Hardie Building Products, Inc.  
10901 Elm Avenue  
Fontana, CA 92337

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

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USE:

Exterior structural wall sheathing, cladding and soffit and structural and non-structural interior wall backerboard and lining board.

DESCRIPTION:

James Hardie Building Products, Inc., structural exterior wall panels and cladding and structural and nonstructural interior wall backerboard and lining boards consist of cellulose fiber-reinforced (non-asbestos) cement flat sheets that are not compressed. The products covered by this report include: Hardiplank<sup>®</sup> (Cemplank<sup>®</sup>, Hardishingle<sup>™</sup>, Sentry<sup>®</sup>), Hardipanel<sup>®</sup> (Hardiflex, Cempanel<sup>®</sup>), Hardipanel<sup>®</sup> shiplap, Harditex<sup>®</sup>, Hardishingle<sup>™</sup> notched panel, Hardishingle cladding shingles<sup>®</sup> and Hardisoffit<sup>®</sup> (Cemsoffit<sup>®</sup>) exterior claddings, and Hardibacker<sup>®</sup> (Ultraboard<sup>®</sup>) (square edge) and Titan<sup>™</sup> (tapered edge), Hardibacker 500<sup>®</sup> (square edge) and Titan<sup>™</sup> -FR interior wall backerboard and lining board.

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**REQUIREMENTS:**

James Hardie Building Products, Inc., structural fiber-cement exterior wall sheathing panels and claddings shall be in compliance with ASTM C1186 (Type A). James Hardie Building Products, Inc., structural and nonstructural fiber-cement interior wall backerboards and lining boards shall be in compliance with ASTM C1288 and ANSI A118.9. James Hardie Building Products, Inc., nonstructural gypsum board/fiber-cement composite interior wall backerboard shall be in compliance with ASTM C36 and ASTM C1278. James Hardie Building Products, Inc., structural exterior wall sheathing panels and claddings and structural and non-structural interior wall backerboard and lining boards shall be installed in accordance with Table 1 and this report.

**Table 1**  
**Allowable Loads for Structural Exterior Wall Panels and Claddings**  
**and Interior Wall Backerboards<sup>1</sup>**

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.091" shank x 0.225" HD x 1 1/2" long ring shank nail	4"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.36)	16	200	90
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 12"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	157	89
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 12"-field	2x lumber (SG <sup>3</sup> 0.42) w/3/8" thick sheathing nailed 6"-edge/6"-field	16	---	---
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	200	149
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	4"-edge/ 4"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	233	236
Harditex <sup>2</sup>	5/16	0.121" shank x 0.375" HD x 1 1/2" long roofing nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	200	144
Harditex <sup>2</sup>	5/16	0.121" shank x 0.375" HD x 1 1/2" long roofing nail	4"-edge/ 12"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	280	144
Harditex <sup>2</sup>	5/16	0.121" shank x 0.375" HD x 1 1/2" long roofing nail	3"-edge/ 12"-field	2 x lumber (SG <sup>3</sup> 0.42) w/48" mid-height block	16	340	144
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 12"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	146	59
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2x lumber (SG <sup>3</sup> 0.42) w/3/8" thick sheathing nailed 6"-edge/6"-field	24	---	---
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	153	94
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.113" shank x 0.266" HD x 2" long nail	4"-edge/ 4"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	212	143

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Harditex <sup>2</sup>	5/16	0.121" shank x 0.375" HD x 1 1/2" long roofing nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	180	84
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	Min No. 8-18 x 0.323" HD x 1" long Hi-Lo S or S-12 ribbed bugle screws	6"-edge/ 6"-field	Min No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	160	170
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	4"-edge/ 8"-field	Min No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	154	170
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup>	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	4"-edge/ 8"-field	Min No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	133	101
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	3"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.40)	16	268	143
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	4" edge/ 8" field	2 x lumber (SG <sup>3</sup> 0.40)	16	238	126
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	5"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.40)	16	208	110
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	6"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.40)	16	179	93
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	7"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.40)	16	149	77
Hardipanel <sup>2</sup> Shiplap	5/16	0.092" shank x 0.225" HD x 2" long nail	8"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.40)	16	119	60
Hardiplank 12"	5/16	0.113" shank x 0.266" HD x 2" long nail	through overlap (face-nailed)	2 x lumber (SG <sup>3</sup> 0.42)	16 & 24	—	75
Hardiplank ≤ 9 1/2"	5/16	0.113" shank x 0.266" HD x 2" long nail	through overlap (face-nailed)	2 x lumber (SG <sup>3</sup> 0.42)	16	—	199
Hardiplank ≤ 9 1/2"	5/16	0.089" shank x 0.221" HD x 2" long siding nail	through overlap (face-nailed)	2 x lumber (SG <sup>3</sup> 0.36)	16	—	106

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardiplank ≤ 9 1/2"	5/16	0.089" shank x 0.221" HD x 2" long siding nail	through overlap (face- nailed)	2 x lumber (SG <sup>3</sup> 0.42) w/3/8" thick sheathing nailed 6"-edge/6"-field	16	—	—
Hardiplank ≤ 9 1/2"	5/16	0.091" shank x 0.221" HD x 1 1/2" long siding nail	12" o. c. Through overlap (face- nailed)	to 7/16" thick APA rated OSB sheathing	—	—	72
Hardiplank ≤ 12"	5/16	Min No. 8-18 x 0.323" HD x 1 5/8" long Hi-Lo S or S-12 ribbed bugle screws	through overlap (face- nailed)	Min. No. 16 ga. x 3 5/8" x 1 3/8" metal C-stud	16 & 24	—	92
Hardiplank ≤ 9 1/2"	5/16	0.121" shank x 0.375" HD x 1 3/4" long roofing nail	through top edge of plank (blind- nailed)	2 x lumber (SG <sup>3</sup> 0.36)	16	—	146
Hardiplank 8" & 8 1/4"	5/16	0.093" shank x 0.222" HD x 2" long siding nail	through top edge of plank (blind- nailed)	2 x lumber (SG <sup>3</sup> 0.36)	16	—	82
Hardiplank ≤ 7 1/2"	5/16	0.093" shank x 0.222" HD x 2" long siding nail	through top edge of plank (blind- nailed)	2 x lumber (SG <sup>3</sup> 0.36)	16	—	82
Hardiplank ≤ 9 1/2"	5/16	Min No. 8-18 x 0.375" HD x 1 1/4" long Hi-Lo S or S-12 ribbed bugle screws	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	169
Hardiplank 12"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	151
Hardiplank 9-1/2"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	198
Hardiplank 8 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	233
Hardiplank 8"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal zC- stud	16	—	241

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardiplank 7 1/2"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	260
Hardiplank 7 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	270
Hardiplank 6 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	317
Hardiplank 6"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	331
Hardiplank 4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	496
Hardiplank 12"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	81
Hardiplank 9 1/2"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	108
Hardiplank 8 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	127
Hardiplank 8"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	131
Hardiplank 7 1/2"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	141
Hardiplank 7 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	152
Hardiplank 6 1/4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	173

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardiplank 6"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	180
Hardiplank 4"	5/16	0.100" shank x 0.245" HD x 1 1/2" ET&F pin fastener	through overlap (face-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	270
Hardiplank 8 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	64
Hardiplank 8"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	66
Hardiplank 7 1/2"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	71
Hardiplank 7 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	73
Hardiplank 6 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	85
Hardiplank 6"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	88
Hardiplank 4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	—	132
Hardiplank 8 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	50
Hardiplank 8"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind-nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	52

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardiplank 7 1/2"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	55
Hardiplank 7 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	59
Hardiplank 6 1/4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	66
Hardiplank 6"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	69
Hardiplank 4"	5/16	0.100" shank x 0.287" HD x 1 1/2" ET&F Panelfast™ fastener	through top edge of plank (blind- nailed)	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	24	—	104
Hardie Cladding Shingle	1/4	0.121" shank x 0.371" HD x 1 1/2" long roofing nail	2 nails per shingle-9" from butt edge <sup>9</sup>	to 15/32" thick APA rated CDX plywood sheathing	—	—	100
Hardie Cladding Shingle	1/4	0.091" shank x 0.221" HD x 2 1/2" long siding nail	2 nails per shingle-9" from butt edge <sup>9</sup>	to 7/16" thick APA rated OSB sheathing	—	—	69
Hardie Cladding Shingle	1/4	0.091" shank x 0.221" HD x 2 1/2" long siding nail	2 nails per shingle-9" from butt edge <sup>9</sup>	to 7/16" thick APA rated OSB sheathing	—	—	89 <sup>7</sup>
Hardisoffit <sup>2</sup>	1/4	0.089" shank x 0.25" HD x 1 1/2" long nail	8"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	165	88
Hardisoffit <sup>2</sup>	1/4	0.089" shank x 0.25" HD x 1 1/2" long nail	8"-edge/ 8"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	120	64
Hardisoffit <sup>2</sup>	1/4	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	190	140
Vented Hardisoffit	1/4	0.083" shank x 0.187" HD x 1 1/2" long nail	8"-edge	2 x lumber (SG <sup>3</sup> 0.40)	24	—	81

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardisoffit <sup>2</sup> (EAVES ONLY)	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	200	149
Hardisoffit <sup>2</sup> (EAVES ONLY)	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6" field	2 x lumber (SG <sup>3</sup> 0.42)	24	153	94
Hardisoffit <sup>2</sup> (EAVES ONLY)	5/16	0.113" shank x 0.266" HD x 2" long nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42) w/3/8" thick sheathing nailed 6"-edge/6"-field	24	—	—
Hardishingle Notched Panel	1/4	0.083" shank x 0.187" HD x 1 1/2" long nail	8" from butt edge of panel	2 x lumber (SG <sup>3</sup> 0.40)	16	—	192
Hardishingle Notched Panel	1/4	0.083" shank x 0.187" HD x 1 1/2" long nail	8" from butt edge of panel	2 x lumber (SG <sup>3</sup> 0.40)	24	—	97
Hardishingle Notched Panel (keyways aligned)	1/4	0.083" shank x 0.187" HD x 1 1/2" long nail	Maximum of 13 3/4" o. c.	to 7/16" thick APA rated OSB sheathing	—	—	68 <sup>8</sup>
Hardishingle Notched Panel (keyways aligned)	1/4	0.083" shank x 0.187" HD x 1 1/2" long nail	Maximum of 13 3/4" o. c.	to 7/16" thick APA rated OSB sheathing	—	—	61 <sup>9</sup>
Titan <sup>2</sup>	1/4	0.086" shank x 1 3/8" long gypsum board nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16 & 24	140	—
Titan <sup>2</sup>	1/4	Min. No. 8-18 x 0.323" HD x 1" long Hi-Lo S or S-12 ribbed bugle screws	6"-edge/ 6"-field	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16 & 24	125	—
Hardibacker <sup>2</sup>	1/4	0.121" shank x 0.375" HD x 1 1/4" long roofing nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16 & 24	180	—
Hardibacker <sup>2</sup>	7/16	0.121" shank x 0.375" HD x 1 3/4" long roofing nail	6"-edge/ 6"-field	2 x lumber (SG <sup>3</sup> 0.42)	16	280	—

Product	Thickness (inches)	Fasteners <sup>3,4</sup>	Fastener Spacing	Frame Type	Stud Spacing (inches)	Shear Value (plf) <sup>5</sup>	Ultimate Load (psf) <sup>6</sup>
Hardibacker <sup>2</sup> Titan <sup>2</sup>	7/16	Min. No. 8-18 x 0.311" HD x 1" long Hi-Lo S or S-12 ribbed bugle screws	6"-edge/ 6" field	Min. No. 20 ga. x 3 5/8" x 1 3/8" metal C-stud	16	162	—
Hardipanel <sup>2</sup> Hardiflex <sup>2</sup> (as skirting)	5/16	0.113" shank x 0.266" HD x 2" long nail	4"-edge/ 4"-field	2 x lumber (SG <sup>3</sup> 0.42)	24	—	143

## Notes:

1. The maximum height-to-length ratio for construction in this Table is 2:1.
2. All panel edges shall be supported by framing. Hardipanel, Hardiflex and Harditex are also permitted to be applied with the long dimension perpendicular to the framing.
3. All fasteners shall be corrosion-resistant.
4. Allowable tolerances for shank diameter, head diameter and length of nail fasteners is as specified in the Federal Specification FF-N-105B, Section 3.4.2.
5. Values determined by testing in accordance with ASTM E72.
6. Values determined by testing in accordance with ASTM E330.
7. Fasteners for 6" or 8" wide shingles. For 12" wide shingles, use 3 nails.
8. Ultimate load when the panel is installed in the straight mode. (Panel edges aligned and fastener heads visible.)
9. Ultimate load when the panel is installed in the staggered mode. (Panel edges staggered and fasteners covered by 1 inch of overlapping panel.)

CERTIFICATION AND IDENTIFICATION:

James Hardie Building Products, Inc., shall certify that Hardiplank<sup>®</sup> (Cemplank<sup>®</sup>, Hardishingle<sup>™</sup>, Sentry<sup>®</sup>), Hardipanel<sup>®</sup> (Hardiflex, Cempanel<sup>®</sup>), Hardipanel<sup>®</sup> shiplap, Harditex<sup>®</sup>, Hardishingle<sup>™</sup> notched panel, Hardie<sup>®</sup> Hardieshingle<sup>™</sup> cladding shingle and Hardisoffit<sup>®</sup> (Cemsoffit<sup>®</sup>) exterior cladding shingle, and Hardibacker<sup>®</sup> (Ultraboard<sup>®</sup>) (square edge) and Titan<sup>™</sup> (tapered edge), Hardibacker 500<sup>®</sup> (square edge) and Titan<sup>™</sup>-FR interior wall backerboard and lining board conform to the requirements of this MR. Intertek Testing Services shall validate the manufacturer's certification that the Hardiplank<sup>®</sup>, Hardipanel<sup>®</sup> (Hardiflex), Hardipanel<sup>®</sup> shiplap, Harditex<sup>®</sup>, Heritage<sup>™</sup> panel, Hardie<sup>®</sup> Shingleside and Hardisoffit<sup>®</sup> exterior claddings, and Hardibacker<sup>®</sup> (square edge) and Titan<sup>™</sup> (tapered edge), Hardibacker 500<sup>®</sup> (square edge) and Titan<sup>™</sup>-FR interior wall backerboard and lining board meet the requirements of this MR. Each certified James Hardie Building Products, Inc., product named in this MR shall be marked with the following information:

1. James Hardie Building Products, Inc.,
2. Hardiplank<sup>®</sup> (Cemplank<sup>®</sup> Hardishingle<sup>™</sup>, Sentry<sup>®</sup>), Hardipanel<sup>®</sup> (Hardiflex, Cempanel<sup>®</sup>), Hardipanel<sup>®</sup> shiplap, Harditex<sup>®</sup>, Hardishingle<sup>™</sup> notched panel, Hardishingle<sup>™</sup> cladding shingle<sup>®</sup> and Hardisoffit<sup>®</sup> (Cemsoffit<sup>®</sup>) exterior claddings, and Hardibacker<sup>®</sup> (Ultraboard<sup>®</sup>) (square edge) and Titan<sup>™</sup> (tapered edge), Hardibacker 500<sup>®</sup> (square edge) or Titan-FR.
3. The Intertek Testing Services validation mark.
4. The manufacturer's conformance to this MR.
5. The date of manufacture.

MANUFACTURING LOCATIONS:

The product covered under this MR will be produced at the following plant(s):

**\*Sponsor, please provide the Name, Address(es), and Phone Number(s) of each manufactured plant.**

WARRANTY:

James Hardie Building Products, Inc., warrants Hardiplank® (Cemplank® Hardishingle™, Sentry®), Hardipanel® (Hardiflex, Cempanel®), Hardipanel® shiplap, Harditex®, Hardishingle™ notched panel, Hardishingle® cladding shingle and Hardisoffit® (Cemsoffit®) exterior claddings, and Hardibacker® (Ultraboard®) (square edge) and Titan™ (tapered edge), Hardibacker 500® (square edge) or Titan™ -FR against faulty performance resulting from faulty materials or workmanship in the manufacturing process for a period of 20 years from the date of installation.

The manufacturer's warranty does not, in any way, relieve the builder of responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provisions applicable to any other housing program. A copy of the manufacturer's warranty shall be furnished by the builder to the owner upon completion of the property.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the FHA Standards, Office of Manufactured Housing Programs, HUD Headquarters, with a representative list of properties in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD, in advance, of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S. Department of Housing and Urban Development  
FHA Standards, Office of Manufactured Housing Programs  
451 Seventh Street, SW; Room 9168  
Washington, DC 20410-8000

Appropriate User Fee shall be sent to:

U. S. Department of Housing and Urban Development  
Miscellaneous Income – Technical Suitability of Products Fees  
Bank of America  
P. O. Box 198762  
Atlanta, GA 30384-8762

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to this MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with the Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system;
2. the manufacturer has changed its organizational form without notifying HUD; or,
3. manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice, of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

\*\*\*\*\*  
 This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.  
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