PrimeWall® Drywall Accesories

Cold-Rolled Channel



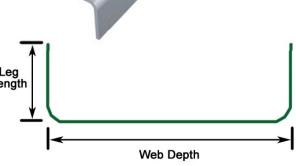
Material Thickness

PrimeWall[®] Cold-Rolled Channel

Material Composition

ASTM A1003/A 1003M Non Structural Grade 33 (230), 33 ksi (230 MPa) minimum yield strength, G40 (Z120) hot-dipped galvanized coating, or equivalent.

Section	Product Profile												
Section	Web Depth	Leg Length	Gauge	Design Thickness	Min Steel Thickness	Inside Bend Radius	Le						
	(D)	(B)	(ga)	(t)	(t _{min})	(R)							
075U050-54, 33 ksi	0.75	0.5	16	0.0566	0.0538	0.0849							
150U050-54, 33 ksi	1.5	0.5	16	0.0566	0.0538	0.0849							



			Gross Pr	roperties	Effective Properties						
Section	Area Weight		l _x	R _x	l _y	R _y	l _{xe}	S _{xe}	Ma	V _a	
	(in [:])	(lbs/ft)	(in')	(in)	(in')	(in)	(in')	(inʾ)	(in-k)	(lb)	
075U050-54, 33 ksi	0.087	0.296	0.007	0.289	0.002	0.156	0.007	0.019	0.459	315	
150U050-54, 33 ksi	0.130	0.441	0.039	0.547	0.003	0.146	0.039	0.052	1.230	840	

Important Notes

1. Section properties and capacities are calculated in accordance with AISI-NASPEC 2007.

2. Tabulated gross properties are based on the full, unreduced cross section of the cold-rolled channel.

3. For deflection calculations, use the effective moment of inertia (I_x). This I_x is calculated at a stress which results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable moment. AISI S100-07 Procedure I for serviceability determination has been used.

Cold Rolled Channel (U) Allowable Ceiling Spans - L/120																					
	Span	4 psf					6 psf Channel Spacing (in) o.c.					13 psf Channel Spacing (in) o.c.					15 psf Channel Spacing (in) o.c.				
Section		Channel Spacing (in) o.c.																			
		24	36	48	60	72	24	36	48	60	72	24	36	48	60	72	24	36	48	60	72
075U050-54, 33 ksi -	Single	4' 10"	4' 1"	3' 7"	3' 3"	3' 0"	4' 1"	3' 5"	3' 0"	2' 9"	2' 6"	2' 11"	2' 5"	2' 2"	1' 11"	1' 9"	2' 9"	2' 4"	2' 0"	1' 10"	1' 8"
	Multiple	5' 5"	4' 6"	4' 2"	3' 10"	3' 5"	4' 6"	3' 11"	3' 5"	3' 2"	2' 11"	3' 5"	2' 9"	2' 4"	2' 1"	1' 11"	3' 1"	2' 7"	2' 2"	2' 0"	1' 9"
150U050-54, 33 ksi	Single	5' 6"	4' 10"	4' 5"	4' 1"	3' 10"	4' 10"	4' 3"	3' 10"	3' 7"	3' 5"	3' 9"	3' 4"	3' 0"	2' 9"	2' 7"	3' 7"	3' 2"	2' 10"	2' 7"	2' 5"
1500050-54, 55 KSI	Multiple	7' 1"	6' 2"	5' 8"	5' 3"	4' 11"	6' 2"	5' 5"	4' 11"	4' 7"	4' 4"	4' 10"	4' 2"	3' 9"	3' 4"	3' 0"	4' 7"	4' 0"	3' 6"	3' 1"	2' 9"
					Cold	Rolle	d Char	nnel (U) Allov	vable (Ceiling	Span	s - L/2	40							
075U050-54, 33 ksi	Single	3' 11"	3' 5"	3' 1"	2' 11"	2' 9"	3' 5"	3' 0"	2'9"	2' 6"	2' 4"	2' 8"	2' 4"	2' 1"	1' 11"	1' 9"	2' 6"	2' 2"	2' 0"	1' 10"	1' 8"
0750050-54, 55 KSI	Multiple	4' 10"	4' 2"	3' 10"	3' 7"	3' 4"	4' 2"	3' 8"	3' 4"	3' 1"	2' 10"	3' 3"	2' 9"	2' 4"	2' 1"	1' 11"	3' 1"	2' 7"	2' 2"	2' 0"	1' 9"
15011050 54, 22 kai	Single	5' 6"	4' 10"	4' 5"	4' 1"	3' 10"	4' 10"	4' 3"	3' 10"	3' 7"	3' 5"	3' 9"	3' 4"	3' 0"	2' 9"	2' 7"	3' 7"	3' 2"	2' 10"	2' 7"	2' 5"
150U050-54, 33 ksi	Multiple	7' 1"	6' 2"	5' 8"	5' 3"	4' 11"	6' 2"	5' 5"	4' 11"	4' 7"	4' 4"	4' 10"	4' 2"	3' 9"	3' 4"	3' 0"	4' 7"	4' 0"	3' 6"	3' 1"	2' 9"
					Cold	Rolle	d Char	nnel (U) Allov	vable (Ceiling	Span	s - L/3	60							
075U050-54, 33 ksi -	Single	3' 5"	3' 0"	2'9"	2' 6"	2' 4"	3' 0"	2' 7"	2' 4"	2' 2"	2' 1"	2' 4"	2' 0"	1' 10"	1' 8"	1'7"	2' 2"	1' 11"	1' 9"	1' 7"	1' 6"
	Multiple	4' 2"	3' 8"	3' 4"	3' 1"	2' 11"	3' 8"	3' 2"	2' 11"	2' 8"	2' 7"	2' 10"	2' 6"	2' 3"	2' 1"	1' 11"	2' 8"	2' 4"	2' 2"	2' 0"	1' 9"
150U050-54, 33 ksi	Single	5' 6"	4' 10"	4' 5"	4' 1"	3' 10"	4' 10"	4' 3"	3' 10"	3' 7"	3' 5"	3' 9"	3' 4"	3' 0"	2' 9"	2' 7"	3' 7"	3' 2"	2' 10"	2' 7"	2' 5"
	Multiple	7' 1"	6' 2"	5' 8"	5' 3"	4' 11"	6' 2"	5' 5"	4' 11"	4' 7"	4' 4"	4' 10"	4' 2"	3' 9"	3' 4"	3' 0"	4' 7"	4' 0"	3' 6"	3' 1"	2' 9"

Important Notes

1. Allowable ceiling spans are based on effective properties.

2. Multiple span indicates two or more equal spans with channel continuous over center support.

3. Bearing length is equal to 0.75 inches.

4. Table values are based on the compression flanged laterally unsupported.