



ACERO ESTRUCTURAL

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PLANOS

PLACAS DE ACERO EN HOJA Y ROLLO

Disponibilidad de placas de acero en diferentes grados:

ASTM A-36; ASTM A-283-C; ASTM A-572- 50; ASTM A-709-50;

ASTM A-285-C; ASTM A-516-70; SAE 1045

Espesor			Peso		Peso teórico por placa (kg.)										
					Medidas										
Pulg.	Milésimas	mm.	kg./m. ²	kg./pie ²	3'x6'	3'x8'	3'x10'	4'x8'	4'x10'	5'x10'	5'x15'	5'x20'	6'x10'	6'x20'	8'x20'
3/16"	188	4.76	37.39	3.47	62.52	83.36	104.20	111.14	138.93	173.66	260.49	347.32	208.39	416.79	555.72
1/4"	250	6.35	49.85	4.63	83.36	111.14	138.93	148.19	185.24	231.55	347.32	463.10	277.86	555.72	740.96
5/16"	313	7.94	62.31	5.79	104.20	138.93	173.66	185.24	231.55	289.44	434.16	578.87	347.32	694.65	926.20
3/8"	375	9.53	74.77	6.95	125.04	166.72	208.39	222.29	277.86	347.32	520.99	694.65	416.79	833.58	1,111.44
7/16"	438	11.11	87.23	8.10	145.88	194.50	243.13	259.34	324.17	405.21	607.82	810.42	486.25	972.51	1,296.68
1/2"	500	12.70	99.70	9.26	166.72	222.29	277.86	296.38	370.48	463.10	694.65	926.20	555.72	1,111.44	1,481.92
5/8"	625	15.88	124.62	11.58	208.39	277.86	347.32	370.48	463.10	578.87	868.31	1,157.75	694.65	1,389.30	1,852.40
3/4"	750	19.05	149.54	13.89	250.07	333.43	416.79	444.58	555.72	694.65	1,041.97	1,389.30	833.58	1,667.16	2,222.88
7/8"	875	22.23	174.47	16.21	291.75	389.00	486.25	518.67	648.34	810.42	1,215.63	1,620.85	972.51	1,945.02	2,593.35
1"	1000	25.40	199.39	18.52	333.43	444.58	555.72	592.77	740.96	926.20	1,389.30	1,852.40	1,111.44	2,222.88	2,963.83
1 1/4"	1250	31.75	249.24	23.15	416.79	555.72	694.65	740.96	926.20	1,157.75	1,736.62	2,315.49	1,389.30	2,778.59	3,704.79
1 1/2"	1500	38.10	299.09	27.79	500.15	666.86	833.58	889.15	1,111.44	1,389.30	2,083.95	2,778.59	1,667.16	3,334.31	4,445.75
1 3/4"	1750	44.45	348.93	32.42	583.50	778.01	972.51	1,037.34	1,296.68	1,620.85	2,431.27	3,241.69	1,945.02	3,890.03	5,186.71
2"	2000	50.80	398.78	37.05	666.86	889.15	1,111.44	1,185.53	1,481.92	1,852.40	2,778.59	3,704.79	2,222.88	4,445.75	5,927.67
2 1/2"	2500	63.50	498.48	46.31	833.58	1,111.44	1,389.30	1,481.92	1,852.40	2,315.49	3,473.24	4,630.99	2,778.59	5,557.19	7,409.58
3"	3000	76.20	598.17	55.57	1,000.29	1,333.73	1,667.16	1,778.30	2,222.88	2,778.59	4,167.89	5,557.19	3,334.31	6,668.63	8,891.50
3 1/2"	3500	88.90	697.87	64.83	1,167.01	1,556.01	1,945.02	2,074.68	2,593.35	3,241.69	4,862.54	6,483.39	3,890.03	7,780.06	10,373.42
4"	4000	101.60	797.56	74.10	1,333.73	1,778.30	2,222.88	2,371.07	2,963.83	3,704.79	5,557.19	7,409.58	4,445.75	8,891.50	11,855.33
4 1/2"	4500	114.30	897.26	83.36	1,500.44	2,000.59	2,500.73	2,667.45	3,334.31	4,167.89	6,251.84	8,335.78	5,001.47	10,002.94	13,337.25
5"	5000	127.00	996.95	92.62	1,667.16	2,222.88	2,778.59	2,963.83	3,704.79	4,630.99	6,946.48	9,261.98	5,557.19	11,114.38	14,819.17
6"	6000	152.40	1196.34	111.14	2,000.59	2,667.45	3,334.31	3,556.60	4,445.75	5,557.19	8,335.78	11,114.38	6,668.63	13,337.25	17,783.00

Nota: El peso es aproximado tomando en cuenta una densidad de acero teórico de 7,850 kg/m³

Lámina Rolada en Caliente, decapada y sin decapar

Calibre	Espesor		Peso		Peso teórico por hoja (kg.)					
	Pulg.	mm.	kg./pie ²	kg./m. ²	3' x 6'	3' x 8'	3' x 10'	4' x 8'	4' x 10'	5' x 10'
3	0.239	6.07	4.43	47.65	79.68	106.24	132.81	141.66	177.07	-
4	0.224	5.69	4.15	44.67	74.69	99.59	124.49	132.79	165.99	-
5	0.209	5.31	3.87	41.68	69.71	92.94	116.18	123.92	154.90	-
6	0.194	4.94	3.60	38.78	64.85	86.46	108.08	115.29	144.11	-
7	0.179	4.55	3.32	35.72	59.73	79.64	99.55	106.19	132.73	-
8	0.164	4.18	3.05	32.81	54.87	73.16	91.45	97.55	121.94	-
9	0.150	3.80	2.77	29.83	49.88	66.51	83.14	88.68	110.85	-
10	0.135	3.42	2.49	26.85	44.90	59.86	74.83	79.81	99.77	124.71
11	0.120	3.04	2.22	23.86	39.91	53.21	66.51	70.95	88.68	110.85
12	0.105	2.66	1.94	20.88	34.92	46.56	58.20	62.08	77.60	97.00
13	0.090	2.28	1.66	17.90	29.93	39.91	49.88	53.21	66.51	-
14	0.075	1.90	1.39	14.92	24.94	33.26	41.57	44.34	55.43	-
15	0.067	1.71	1.25	13.42	22.45	29.93	37.41	39.91	49.89	-
16	0.060	1.52	1.11	11.93	19.95	26.60	33.26	35.47	44.34	-

Nota: Pesos teóricos

Lámina Antiderrapante

Calibre	Espesor		Peso		Peso teórico por hoja de lámina y placa (kg.)			
	Pulg.	mm.	kg./pie ²	kg./m. ²	3' x 8'	3' x 10'	4' x 8'	4' x 10'
3/8	0.375	9.53	7.42	79.74	177.99	222.49	237.32	296.65
5/16	0.313	7.94	6.26	67.31	150.23	187.79	200.31	250.38
1/4	0.250	6.35	5.10	54.87	122.47	153.09	163.29	204.12
3/16	0.188	4.76	3.95	42.43	94.71	118.39	126.28	157.85
1/8	0.125	3.18	2.79	30.00	66.95	83.69	89.27	111.58
12	0.105	2.66	2.38	25.61	57.15	71.44	76.20	95.25
14	0.075	1.90	1.70	18.29	40.82	51.03	54.43	68.04

Nota: Pesos teóricos



Lámina Rolada en Frío

Calibre	Espesor		Peso		Peso teórico por hoja (kg./hoja)			
	Pulg.	mm.	kg./pie ²	kg./m ²	3' x 8'	3' x 10'	4' x 8'	4' x 10'
14	0.0747	1.90	1.39	14.92	33.26	41.57	44.34	55.43
16	0.0598	1.52	1.11	11.93	26.60	33.26	35.47	44.34
18	0.0478	1.21	0.88	9.50	21.18	26.47	28.24	35.30
20	0.0359	0.91	0.66	7.14	15.93	19.91	21.24	26.55
22	0.0299	0.76	0.55	5.97	13.30	16.63	17.74	22.17
24	0.0239	0.61	0.44	4.79	10.68	13.35	14.24	17.80
26	0.0179	0.45	0.33	3.53	7.88	9.85	10.50	13.13
28	0.0149	0.38	0.28	2.98	6.65	8.31	-	-
30	0.0120	0.30	0.22	2.36	5.25	6.56	-	-

Lámina Recubierta

Calibre	Espesor		Peso			Peso teórico por hoja (kg.)					
			(Kg./m.)		(Kg./m.²)						
	Pulg.	mm.	3'	4'		3' x 6'	3' x 8'	3' x 10'	3' x 12'	4' x 8'	4' x 10'
10	0.1359	3.45	24.77	-	27.11	45.33	60.44	75.55	90.66	-	-
12	0.1061	2.69	19.32	25.76	21.15	35.36	47.15	58.93	70.72	62.86	78.58
14	0.0762	1.94	13.87	18.50	15.18	25.38	33.84	42.30	50.76	45.12	56.40
16	0.0613	1.56	11.15	14.87	12.20	20.40	27.20	34.00	40.80	36.27	45.33
18	0.0493	1.25	8.97	11.96	9.82	16.42	21.89	27.37	32.84	29.19	36.49
20	0.0374	0.95	6.80	8.91	7.44	12.44	16.59	20.73	24.88	22.12	27.64
22	0.0314	0.80	5.64	7.61	6.24	10.43	13.91	17.38	20.86	18.54	23.18
24	0.0224	0.57	4.06	5.42	4.44	7.43	9.91	12.38	14.86	13.21	16.51
26	0.0194	0.49	3.52	4.69	3.85	6.44	8.59	10.73	12.88	11.45	14.31
28	0.0164	0.42	2.97	3.96	3.25	5.44	7.25	9.07	10.88	9.67	12.09
30	0.0135	0.34	2.44	-	2.67	4.47	5.96	7.45	8.94	-	-
32	0.0112	0.28	2.02	-	2.21	3.70	4.93	6.16	7.39	-	-



Lámina Recubierta Acanalada (Rectangular y Ondulada)

Calibre	Espesor		Peso		Peso teórico por hoja (kg.)					
			(Kg./m.)							
	Pulg.	mm.	3'	4'	3' x 6'	3' x 8'	3' x 10'	3' x 12'	4' x 8'	4' x 10'
20	0.0374	0.95	6.80	8.91	12.43	16.57	20.72	24.86	22.10	27.62
22	0.0314	0.80	5.64	7.61	10.43	13.91	17.38	20.86	18.54	23.18
24	0.0224	0.57	4.06	5.42	7.43	9.90	12.38	14.86	13.21	16.51
26	0.0194	0.49	3.52	4.69	6.43	8.57	10.71	12.86	11.43	14.29
28	0.0164	0.42	2.97	3.96	5.43	7.24	9.05	10.86	9.65	12.06
30	0.0135	0.34	2.44	-	4.46	5.95	7.44	8.92	-	-
32	0.0112	0.28	2.02	-	3.70	4.93	6.17	7.40	-	-



Lámina Translúcida

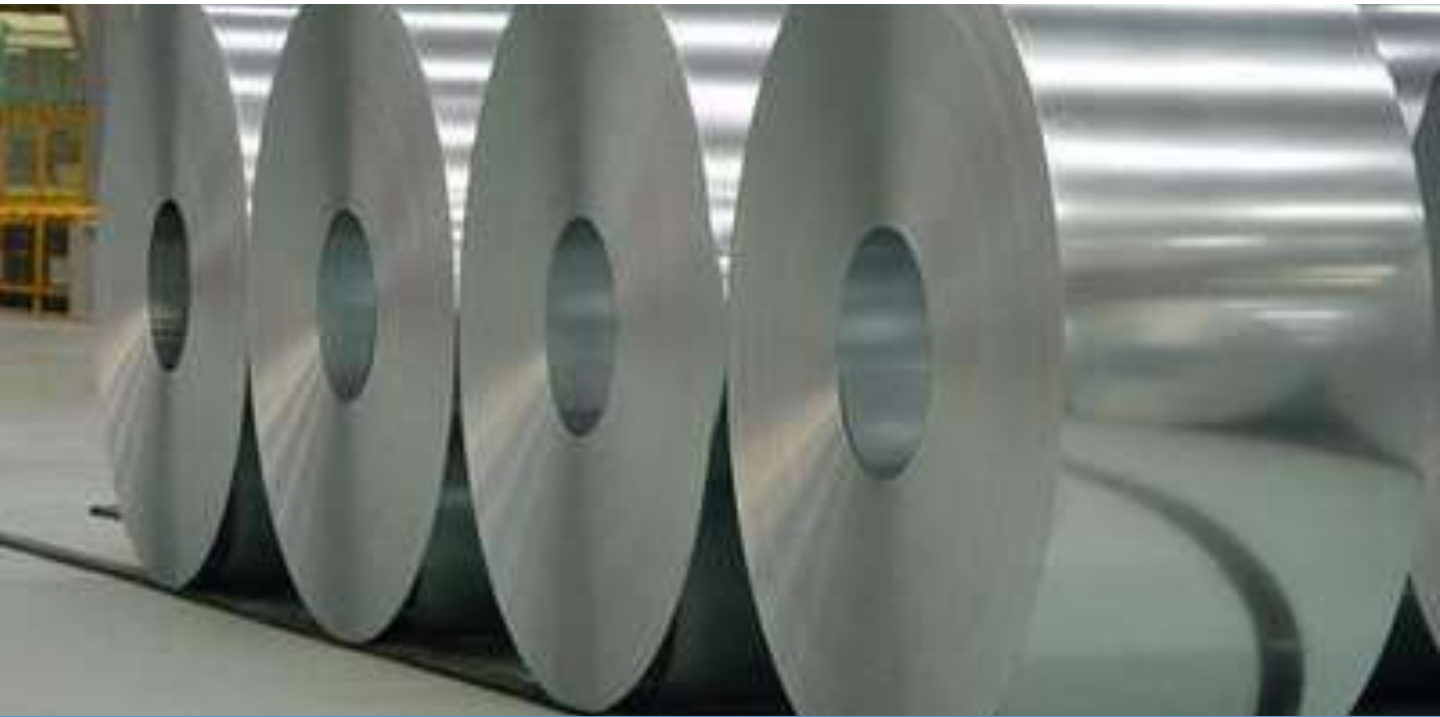
ACRYLITG 10					
Color	Difusión de luz	Transmisión de luz	Resistencia al impacto	Resistencia a la tensión	Resistencia a la flexión
			(J/m.)	(kg./cm ²)	(kg./cm ²)
Blanco	95%	55%	-	-	-
Cristal*	95%	80%	370	820	1680

Espesor	Perfil tipo
(mm.)	
1.4	R-72
1.4	R-101

POLIACRYLG 5					
Color	Difusión de luz	Transmisión de luz	Resistencia al impacto	Resistencia a la tensión	Resistencia a la flexión
			(J/m.)	(kg./cm ²)	(kg./cm ²)
Blanco	35%	35%	-	-	-
Cristal*	35%	85%	290	900	1350

Espesor	Perfil tipo
(mm.)	
1.2	R-72
1.2	R-101

POLYLITG 3		
		Espesor
		(mm.)
Blanco, Cristal, Verde, Azul, Amarillo, y Rojo		0.9
		1.83 m., 2.44 m., 3.05 m., 3.66 m.





| LARGOS

Ángulos (lados iguales)

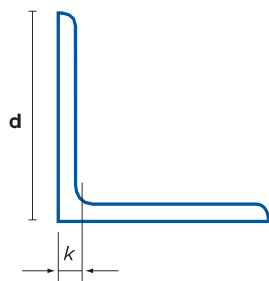
Espesor y Dimensiones				Peso	
Pulg.		mm.			
Espesor (k)	Ancho (bf)	Espesor (k)	Ancho (bf)	kg./m.	lb./pie.
cal.12 (.109") x	1	2.77 x	25.40	1.04	0.70
	1 1/4		31.75	1.32	0.89
	1 1/2		38.10	1.59	1.07
1/8 x	3/4	3.18 x	19.05	0.88	0.59
	1		25.40	1.19	0.80
	1 1/4		31.75	1.50	1.01
	1 1/2		38.10	1.83	1.23
	2		50.80	2.46	1.65
5/32 x	1 1/2	3.96 x	38	2.25	1.52
	2		50.8	3.04	2.04
3/16 x	1	4.76 x	25.40	1.73	1.16
	1 1/4		31.75	2.20	1.48
	1 1/2		38.10	2.68	1.80
	2		50.80	3.63	2.44
	2 1/2		63.50	4.57	3.07
	3		76.20	5.52	3.71
1/4 x	1	6.35 x	25.40	2.22	1.49
	1 1/4		31.75	2.86	1.92
	1 1/2		38.10	3.48	2.34
	2		50.80	4.75	3.19
	2 1/2		63.50	6.10	4.10
	3		76.20	7.29	4.90
	3 1/2		88.90	8.63	5.80
	4		101.60	9.82	6.60
5/16 x	2	7.94 x	50.80	5.83	3.92
	2 1/2		63.50	7.44	5.00
	3		76.20	9.08	6.10
	3 1/2		88.90	10.71	7.20
	4		101.60	12.20	8.20
	5		127	15.3	10.30

				Peso	
Pulg.		mm.			
Espesor (k)	Ancho (bf)	Espesor (k)	Ancho (bf)	kg./m.	lb./pie.
3/8 x	2	9.53 x	50.80	6.99	4.70
	2 1/2		63.50	8.78	5.90
	3		76.20	10.71	7.20
	4		101.60	14.58	9.80
	5		127	18.3	12.3
	6		152.40	22.17	14.90
7/16x	4	11.1x	102	16.8	11.3
	6		152	25.6	17.2
1/2 x	3	12.70 x	76.20	13.99	9.40
	4		101.60	19.05	12.80
	5		127	24.11	16.20
	6		152.40	29.17	19.60
	8		203	39.30	26.40
5/8 x	4	15.88 x	101.60	23.36	15.70
	6		152.40	36.01	24.20
	8		203.20	48.66	32.70
3/4 x	6	19.05 x	152.40	42.71	28.70
	8		203.20	57.89	38.90
1	6	25.40	152.40	55.66	37.4

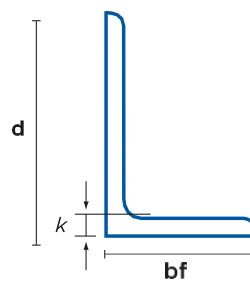


Ángulos (lados desiguales)

Espesor y		D imensiones		Peso	
Pulg.		mm.			
Espesor (k)	Dimensión (d x bf)	Espesor (k)	Dimensión (d x bf)	kg./m.	lb./pie.
1/4	3 x 2	6.35	76.2 x 50.8	7.71	4.10
	4 x 3		101.6 x 76.2	8.63	5.8
	5 x 3 1/2		127 x 88.9	15.48	10.40
5/16	4 x 3	7.90	101.6 x 76.2	10.70	7.20
3/8	5 x 3 1/2	9.53	127 x 88.9	15.48	10.40
	6 x 4		152.4 x 101.6	18.30	12.30
1/2	6 x 4	12.70	152.4 x 101.6	24.11	16.20



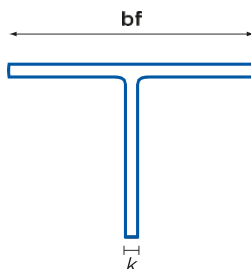
Ángulos (lados iguales)



Ángulos (lados desiguales)

Perfil Tee

Dimensión (k x bf)		Peso	
Pulg.	mm.	kg./m.	lb./pie.
1/8 x 1	3.18 x 25.4	1.32	0.89



Soleras

Dimensiones				Peso	
Pulg.		mm.			
Espesor	Ancho	Espesor	Ancho	kg./m.	lb./pie
1/8	1/2	3.2	12.7	0.31	0.21
	3/4		19.1	0.47	0.32
	1		25.4	0.63	0.43
	1 1/4		31.7	0.79	0.53
	1 1/2		38.1	0.95	0.64
	2		50.8	1.26	0.85
	2 1/2		63.5	1.58	1.06
5/32	3/4	3.96	19.05	0.59	0.4
3/16	1/2	4.8	12.7	0.47	0.32
	3/4		19.1	0.71	0.48
	1		25.4	0.94	0.64
	1 1/4		31.7	1.18	0.80
	1 1/2		38.1	1.42	0.96
	2		50.8	1.90	1.28
	2 1/2		63.5	2.37	1.59



				Peso	
Pulg.		mm.			
Espesor	Ancho	Espesor	Ancho	kg./m.	lb./pie
1/4	1/2	6.3	12.7	0.63	0.43
	3/4		19.1	0.95	0.64
	1		25.4	1.26	0.85
	1 1/4		31.7	1.58	1.06
	1 1/2		38.1	1.90	1.28
	2		50.8	2.53	1.70
	2 1/2		63.5	3.17	2.13
	3		76.2	3.79	2.55
	4		101.6	5.06	3.40
	5		127	6.32	4.25
	6		152.4	7.59	5.10
	8		203.2	10.12	6.80
	10		254	12.65	8.50
	12		304.8	15.18	10.20
5/16	1	7.9	25.4	1.58	1.06
	1 1/4		31.7	1.97	1.33
	1 1/2		38.1	2.37	1.59
	2		50.8	3.16	2.13
	2 1/2		63.5	3.95	2.66
	3		76.2	4.79	3.22
	4		101.6	6.32	4.25
	5		127	7.90	5.31
	6		152.4	9.49	6.38

				Peso	
Pulg.		mm.			
Espesor	Ancho	Espesor	Ancho	kg./m.	lb./pie
5/8	4	15.9	101.6	12.65	8.50
	5		127	15.81	10.63
	6		152.4	18.97	12.75
	8		203.2	25.31	17.01
	10		254	31.65	21.27
	12		304.8	37.99	25.53
3/4	3	19	76.2	11.39	7.65
	4		101.6	15.18	10.20
	5		127	18.98	12.75
	6		152.4	22.77	15.30
	8		203.2	25.31	17.01
	10		254	31.65	21.27
	12		304.8	37.99	25.53

Dimensiones				Peso	
Pulg.		mm.			
Espesor	Ancho	Espesor	Ancho	kg./m.	lb./pie
1	2	25.4	50.8	10.12	6.80
	3		76.2	15.18	10.20
	4		101.6	20.24	13.60
	5		127	25.30	17.00
	6		152.4	30.36	20.40
	8		203.2	40.52	27.23
	10		254	50.64	34.03
	12		304.8	60.76	40.83
1 1/8	3.15	28.6	80	17.93	12.05

Dimensiones				Peso	
Pulg.		mm.			
Espesor	Ancho	Espesor	Ancho	kg./m.	lb./pie
3/8	1	9.5	25.4	1.90	1.28
	1 1/4		31.7	2.37	1.59
	1 1/2		38.1	2.84	1.91
	2		50.8	3.79	2.55
	2 1/2		63.5	4.74	3.19
	3		76.2	5.69	3.83
	4		101.6	7.59	5.10
	5		127	9.49	6.38
	6		152.4	11.38	7.65
	8		203.2	15.19	10.21
	10		254	18.99	12.76
	12		304.8	22.78	15.31
1/2	1 1/2	12.7	38.1	3.81	2.56
	2		50.8	5.06	3.40
	2 1/2		63.5	6.32	4.25
	3		76.2	7.59	5.10
	4		101.6	10.12	6.80
	5		127	12.65	8.50
	6		152.4	15.18	10.20
	8		203.2	20.25	13.61
	10		254	25.31	17.01
	12		304.8	30.39	20.42

Redondo, Cuadrado y Cuadrado Retorcido

Medidas			Peso					
			Redondos		Cuadrados		Cuadrado retorcido	
pulg.	milésimas	mm.	kg./m.	lb./pie	kg./m.	lb./pie	kg./m.	lb./pie
12 mm.	0.472	12.00	-	-	1.14	0.77	-	-
3/8	0.375	9.53	0.56	0.38	0.71	0.48	0.71	0.48
1/2	0.500	12.70	0.99	0.67	1.26	0.85	1.26	0.85
5/8	0.625	15.88	1.55	1.04	1.98	1.33	1.98	1.33
3/4	0.750	19.05	2.24	1.50	2.85	1.91	-	-
7/8	0.875	22.23	3.04	2.04	-	-	-	-
1	1.000	25.40	3.97	2.67	5.06	3.40	-	-
1 1/8	1.125	28.58	5.03	3.38	-	-	-	-
1 1/4	1.250	31.75	6.21	4.17	7.91	5.31	-	-
1 3/8	1.375	34.93	7.51	5.05	-	-	-	-
1 1/2	1.500	38.10	8.94	6.01	11.38	7.65	-	-
1 3/4	1.750	44.45	12.17	8.18	-	-	-	-
1 7/8	1.875	47.63	13.97	9.39	-	-	-	-
2	2.000	50.80	15.90	10.68	20.24	13.60	-	-
2 1/4	2.250	57.15	20.12	13.52	-	-	-	-
2 1/2	2.500	63.50	24.84	16.69	31.62	21.25	-	-
3	3.000	76.20	35.76	24.04	45.54	30.60	-	-



Redondo



Cuadrado



Cuadrado Retorcido

Normas

País	Norma	Grado de varilla
México	NMX-C-407-ONNCE-2001	30/42
	NMX-B-457	42
EUA	ASTM-615	40/60/75
	ASTM A-706	60



Varilla Corrugada

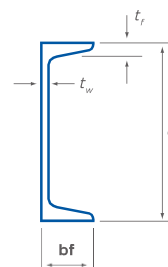
No. Designación	Calibre		Peso		Área de la sección transversal	Perímetro
	pulg.	mm.	kg./m.	lb./pie	mm ²	mm.
3	3/8	9.5	0.56	0.38	71	29.8
4	1/2	12.7	0.99	0.67	127	39.9
5	5/8	15.9	1.55	1.04	198	50
6	3/4	19.1	2.24	1.50	285	60
8	1	25.4	3.97	2.67	507	79.8
10	1 1/4	31.8	6.23	4.30	794	99.9
12	1 1/2	38.1	8.94	5.99	1140	119.7

Varilla Corrugada (18J)

No. Designación	Peso		Diámetro		Área de la sección transversal	
	kg./m.	lb./ft	(mm)	in.	mm ²	in ²
18	1.88	13.6	57.33	2.257	2581	4

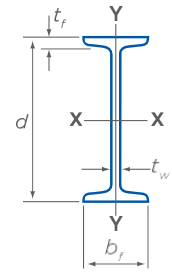
Canal C.P. S.

Peralte		Peso		Patin				Alma	
d				Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg.	mm.	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.
3	76.2	5.21	3.5	1.372	34.85	0.273	25.67	0.132	3.35
		6.10	4.1	1.410	35.81	0.273	25.67	0.170	4.32
4	101.6	6.70	4.5	1.584	40.23	0.296	7.52	0.125	3.18
		8.04	5.4	1.584	40.23	0.296	7.52	0.184	4.67
5	127.0	9.97	6.7	1.750	44.45	0.320	8.13	0.190	4.83
		12.20	8.2	1.920	48.77	0.343	8.71	0.200	5.08
6	152.4	15.63	10.5	2.034	51.66	0.343	8.71	0.314	7.98
		19.35	13.0	2.157	54.79	0.343	8.71	0.437	11.10
		17.11	11.5	2.260	57.40	0.390	9.91	0.220	5.59
8	203.2	20.46	13.75	2.343	59.51	0.390	9.91	0.303	7.70
		27.90	18.75	2.527	64.19	0.390	9.91	0.487	12.37
10	254.0	22.77	15.3	2.600	66.04	0.436	11.07	0.240	6.10
		29.76	20	2.739	69.57	0.436	11.07	0.379	9.63
		37.20	25	2.886	73.30	0.436	11.07	0.526	13.36
		44.64	30	3.033	77.04	0.436	11.07	0.673	17.09
12	304.8	30.80	20.7	2.942	74.73	0.501	12.73	0.282	7.16
		37.20	25	3.047	77.39	0.501	12.73	0.387	9.83
15	381.0	44.64	30	3.170	80.52	0.501	12.73	0.510	12.95
		50.45	33.9	3.400	86.36	0.650	16.51	0.400	10.16
		59.53	40	3.520	89.41	0.650	16.51	0.520	13.21



Vigas I.P.S (tipo Americano)

Peralte		Peso		Patín				Alma	
d				Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg.	mm.	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.
3	76.2	8.48	5.70	2.33	59.18	0.26	6.6	0.17	4.3
4	101.6	11.46	7.70	2.66	67.64	0.29	7.4	0.19	4.9
5	127.0	14.88	10.00	3.00	76.30	0.33	8.3	0.21	5.4
6	152.4	18.60	12.50	3.33	84.63	0.36	9.1	0.23	5.9
8	203.2	27.38	18.40	4.00	101.63	0.43	10.8	0.27	6.9



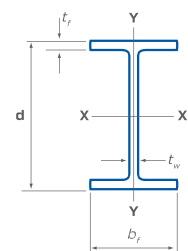
(Vigas I.P.R. continuación)

Nominal		Peso		Peralte		Patín				Alma	
				d		Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg. (d x bf)	mm. (d x bf)	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.	pulg.	mm.
12 x 12	304.8 x 304.8	96.7	65	12.12	308	12.00	305	0.61	15.4	0.39	9.9
		107.1	72	12.25	311	12.04	306	0.67	17.0	0.43	10.9
		117.6	79	12.38	314	12.08	307	0.74	18.7	0.47	11.9
		142.9	96	12.71	323	12.16	309	0.90	22.9	0.55	14.0
14 x 5	355.6 x 127	32.7	22	13.74	349	5.00	127	0.34	8.5	0.23	5.8
		38.7	26	13.91	353	5.03	128	0.42	10.7	0.26	6.5
		44.6	30	13.84	352	6.73	171	0.39	9.8	0.27	6.9
14 x 6-3/4	355.6 x 171.4	50.6	34	13.98	355	6.75	171	0.46	11.6	0.29	7.2
		56.5	38	14.10	358	6.77	172	0.52	13.1	0.31	7.9
		64.0	43	13.66	347	8.00	203	0.53	13.5	0.31	7.7
14 x 8	355.6 x 203.2	71.4	48	13.79	350	8.03	204	0.60	15.1	0.34	8.6
		78.9	53	13.92	354	8.06	205	0.66	16.8	0.37	9.4
		90.8	61	13.89	353	10.00	254	0.65	16.4	0.38	9.5
14 x 10	355.6 x 254	101.2	68	14.04	357	10.04	255	0.72	18.3	0.42	10.5
		110.1	74	14.17	360	10.07	256	0.79	19.9	0.45	11.4
		122.0	82	14.31	363	10.13	257	0.855	21.7	0.510	13.0
		133.9	90	14.02	356	14.52	369	0.71	18.0	0.44	11.2
14 x 14-1/2	355.6 x 368.3	147.3	99	14.16	360	14.57	370	0.78	19.8	0.49	12.3
		162.2	109	14.32	364	14.61	371	0.86	21.8	0.53	13.3
		178.6	120	14.48	368	14.67	373	0.94	23.9	0.59	15.0
		196.4	132	14.66	372	14.73	374	1.03	26.2	0.65	16.4



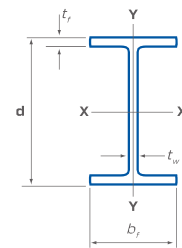
Nominal		Peso		Peralte		Patín				Alma	
				d		Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg. (d x bf)	mm. (d x bf)	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.	pulg.	mm.
14 x 16	355.6 x 406.4	215.8	145	14.78	375	15.50	394	1.09	27.7	0.68	17.3
		236.6	159	14.98	380	15.57	395	1.19	30.2	0.75	18.9
		261.9	176	15.22	387	15.65	398	1.31	33.3	0.83	21.1
		287.2	193	15.48	393	15.71	399	1.44	36.6	0.89	22.6
		382.4	257	16.38	416	16.00	406	1.89	48.0	1.18	29.8
16 x 5-1/2	406.4 x 139.7	38.7	26	15.69	399	5.50	140	0.35	8.8	0.25	6.4
		46.1	31	15.88	403	5.53	140	0.44	11.2	0.28	7.0
16 x 7	406.4 x 177.8	53.6	36	15.86	403	6.99	177	0.43	10.9	0.30	7.5
		59.5	40	16.01	407	7.00	178	0.51	12.8	0.31	7.7
		67.0	45	16.13	410	7.04	179	0.57	14.4	0.35	8.8
		74.4	50	16.26	413	7.07	180	0.63	16.0	0.38	9.7
		84.8	57	16.43	417	7.12	181	0.72	18.2	0.43	10.9
16 x 10-1/4	406.4 x 260.3	99.7	67	16.33	415	10.24	260	0.67	16.9	0.40	10.0
		114.6	77	16.52	420	10.30	261	0.76	19.3	0.46	11.6
		132.4	89	16.75	425	10.37	263	0.88	22.2	0.53	13.3
18 x 6	457.2 x 152.4	52.1	35	17.70	450	6.00	152	0.43	10.8	0.30	7.6
		59.5	40	17.90	455	6.02	153	0.53	13.3	0.32	8.0
		68.4	46	18.06	459	6.06	154	0.61	15.4	0.36	9.1
18 x 7-1/2	457.2 x 190.5	74.4	50	17.99	457	7.50	190	0.57	14.5	0.36	9.0
		81.8	55	18.11	460	7.53	191	0.63	16.0	0.39	9.9
		89.3	60	18.24	463	7.56	192	0.70	17.7	0.42	10.5
		96.7	65	18.35	466	7.59	193	0.75	19.1	0.45	11.4
		105.6	71	18.47	469	7.64	194	0.81	20.6	0.50	12.6

Nominal		Peso		Peralte		Patín				Alma	
				d		Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg. (d x bf)	mm. (d x bf)	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.	pulg.	mm.
18 x 11	457.2 x 279.4	113.1	76	18.21	463	11.04	280	0.68	17.3	0.43	10.8
		128.0	86	18.39	467	11.09	282	0.77	19.6	0.48	12.2
		144.3	97	18.59	472	11.15	283	0.87	22.1	0.54	13.6
		157.7	106	18.73	476	11.20	284	0.94	23.9	0.59	15.0
		177.1	119	18.97	482	11.27	286	1.06	26.9	0.66	16.6
21 x 6-1/2	533.4 x 165.1	65.5	44	20.66	525	6.50	165	0.45	11.4	0.35	8.9
		74.4	50	20.83	529	6.53	166	0.54	13.6	0.38	9.7
		84.8	57	21.06	535	6.56	166	0.65	16.5	0.41	10.3
21 x 8-1/4	533.4 x 209.5	92.3	62	20.99	533	8.24	209	0.62	15.6	0.40	10.2
		101.2	68	21.13	537	8.27	210	0.69	17.4	0.43	10.9
		138.4	93	21.62	549	8.42	214	0.93	23.6	0.58	14.7
21 x 12-1/4	533.4 x 311.15	150.3	101	21.36	543	12.29	312	0.80	20.3	0.50	12.7
		165.2	111	21.51	546	12.34	313	0.88	22.2	0.55	14.0
		181.5	122	21.68	551	12.39	315	0.96	24.4	0.60	15.2
24 x 7	609.6 x 177.8	81.8	55	23.57	599	7.01	178	0.51	12.8	0.40	10.0
		92.3	62	23.74	603	7.04	179	0.59	15.0	0.43	10.9



(Vigas I.P.R. continuación)

Nominal		Peso		Peralte		Patín				Alma	
				d		Ancho (bf)		Espesor (tf)		Espesor (tw)	
pulg. (d x bf)	mm. (d x bf)	kg./m.	lb./pie	pulg.	mm.	pulg.	mm.	pulg.	mm.	pulg.	mm.
24 x 9	609.6 x 228.6	101.2	68	23.73	603	8.97	228	0.59	14.9	0.42	10.5
		113.1	76	23.93	608	8.99	228	0.68	17.3	0.44	11.2
		125.0	84	24.10	612	9.02	229	0.77	19.6	0.47	11.9
		139.9	94	24.31	617	9.07	230	0.88	22.2	0.52	13.1
		153.3	103	24.53	623	9.00	229	0.98	24.9	0.55	14.0
24 x 12-3/4	609.6 x 323.8	154.8	104	24.06	611	12.75	324	0.75	19.1	0.50	12.7
		174.1	117	24.26	616	12.80	325	0.85	21.6	0.55	14.0
		194.9	131	24.48	622	12.86	327	0.96	24.4	0.61	15.4
		217.2	146	24.74	628	12.90	328	1.09	27.7	0.65	16.5
		241.1	162	25.00	635	12.96	329	1.22	31.0	0.71	17.9
27 x 10	685.8 x 254	125.0	84	26.71	678	9.96	253	0.64	16.3	0.46	11.7
		139.9	94	26.92	684	9.99	254	0.75	18.9	0.49	12.4
		151.8	102	27.09	688	10.02	254	0.83	21.1	0.52	13.1
		169.6	114	27.29	693	10.07	256	0.93	23.6	0.57	14.5
27 x 14	685.8 x 355.6	217.3	146	27.38	695	13.97	355	0.98	24.8	0.61	15.4
30 x 10-1/2	762 x 266.7	133.9	90	29.53	750	10.40	264	0.61	15.5	0.47	11.9
		147.3	99	29.65	753	10.45	265	0.67	17.0	0.52	13.2
		160.7	108	29.83	758	10.48	266	0.76	19.3	0.55	13.8
		172.6	116	30.01	762	10.50	267	0.85	21.6	0.57	14.4
33 x 11-1/2	838.2 x 292.1	175.6	118	32.86	835	11.48	292	0.74	18.8	0.55	14.0
		193.4	130	33.09	840	11.51	292	0.86	21.7	0.58	14.7
		209.8	141	33.30	846	11.54	293	0.96	24.4	0.61	15.4
		226.2	152	33.49	851	11.57	294	1.06	26.8	0.64	16.1
		251.5	169	33.82	859	11.50	292	1.22	31.0	0.67	17.0
		200.9	135	35.55	903	11.95	304	0.79	20.1	0.60	15.2
36 x 12	914.4 x 304.8	223.2	150	35.85	911	11.98	304	0.94	23.9	0.63	15.9
		238.1	160	36.01	915	12.00	305	1.02	25.9	0.65	16.5





TUBERÍA

Tubería API 5 L B / ASTM A53 B / A500

Diámetro Exterior	Espesor	Cédula	Peso teórico
Pulg.	Pulg.		kg./m.
6 (6 5/8)	0.188	30	19.26
	0.250	-	25.36
	0.280	40	28.26
	0.432	80	42.64
8 (8 5/8)	0.188	-	25.24
	0.250	20	33.31
	0.322	40	42.54
	0.500	80	64.64
10 (10 3/4)	0.250	20	41.76
	0.307	30	51.01
	0.365	40	60.30
	0.500	60	81.53
12 (12 3/4)	0.250	20	49.72
	0.330	30	65.21
	0.375	STD	73.83
	0.406	40	79.73
	0.500	XS	97.45
14	0.250	10	54.69
	0.375	STD/30	81.28
	0.438	40	94.51
	0.500	XS	107.39
16	0.250	10	62.64
	0.375	STD/30	93.22
	0.500	XS/40	123.30
	0.656	60	160.14
18	0.844	80	203.51
	0.250	10	70.60
	0.375	STD	105.14
	0.500	XS	139.20
	0.562	40	155.92
	0.750	60	205.83
	0.938	80	254.62

Diámetro Exterior	Espesor	Cédula	Peso teórico
Pulg.	Pulg.		kg./m.
20	0.250	10	78.55
	0.375	STD/20	117.07
	0.500	XS/30	155.12
	0.594	40	183.39
	0.812	60	247.88
24	0.250	10	94.46
	0.375	STD/20	140.95
	0.500	XS	186.93
	0.562	30	209.53
	0.688	40	255.17
30	0.250	-	118.33
	0.375	STD	176.75
	0.500	XS/20	234.67
	0.625	30	292.09
36	0.750	-	349.02
	0.250	-	142.19
	0.375	STD	212.54
	0.500	XS	282.40
	0.625	30	351.75
42	0.750	40	420.61
	0.375	STD	248.34
	0.500	XS	330.13
	0.625	-	411.41
48	0.750	-	492.20
	0.375	STD	284.14
	0.500	XS	377.85
	0.625	-	471.07
	0.750	-	563.80

Tubería Mecánica Cédula 30 / A500

Cédula	Diámetro nominal		Diámetro ext.		Calibre	Espesor		Peso	Contenido		
	Pulg.	mm.	Pulg.	mm.		Pulg.	mm.		kg./pieza.	Pzas. /Paq.	Kg./Paq.
30	1/2	12.70	0.840	21.34	14	0.075	1.90	0.95	5.80	169	979.36
	3/4	19.05	1.050	26.67	14	0.075	1.90	1.21	7.38	127	937.39
	1	25.40	1.315	33.40	14	0.075	1.90	1.53	9.33	91	849.30
	1 1/4	31.75	1.660	42.16	13	0.090	2.28	2.25	13.73	61	837.23
	1 1/2	38.10	1.900	48.26	13	0.090	2.28	2.59	15.80	61	963.74
	2	50.80	2.375	60.33	12	0.105	2.66	3.93	23.97	37	887.00
	2 1/2	63.50	2.875	73.03	12	0.105	2.66	4.79	29.22	37	1081.10
	3	76.20	3.500	88.90	11	0.120	3.04	6.45	39.35	19	747.56
	4	101.60	4.500	114.30	11	0.120	3.04	8.35	50.94	19	967.77
	6	152.40	6.625	168.28	3/16	0.188	4.76	19.23	117.30	7	821.12

Tubería Mecánica Cédula 40 / A500

Cédula	Diámetro nominal		Diámetro ext.		Calibre	Espesor		Peso	Contenido		
	Pulg.	mm.	Pulg.	mm.		Pulg.	mm.		kg./pieza.	Piezas/paquete	Kg./Paq.
40	1/2	12.70	0.840	21.34	12	0.105	2.66	1.27	8.13	91	739.65
	3/4	19.05	1.050	26.67	12	0.105	2.66	1.63	10.43	91	949.31
	1	25.40	1.315	33.40	10	0.135	3.42	2.53	16.19	61	987.71
	1 1/4	31.75	1.660	42.16	10	0.135	3.42	3.27	20.93	37	774.34
	1 1/2	38.10	1.900	48.26	10	0.135	3.42	3.79	24.26	37	897.47
	2	50.80	2.375	60.33	10	0.135	3.42	4.81	30.78	37	1139.00
	2 1/2	63.50	2.875	73.03	3/16"	0.188	4.77	8.03	51.39	37	1901.50
	3	76.20	3.500	88.90	4	0.224	5.69	11.67	74.69	19	1419.07
	4	101.60	4.500	114.30	4	0.224	5.69	15.24	97.54	19	1853.18
	6	152.40	6.625	168.28	0.280"	0.280	7.11	28.24	180.74	7	1265.15



Tubería Industrial (redonda)

Diámetro exterior			Peso (kg./m.)														
			Calibre														
pulg	pulg	mm	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
1/2	0.500	12.70	0.19	0.21	0.24	0.26	0.27	0.32	0.35	-	-	-	-	-	-	-	-
	0.625	15.88	0.24	0.27	0.30	0.33	0.34	0.41	0.45	0.52	0.57	-	-	-	-	-	-
5/8	0.675	17.15	-	-	0.32	0.36	0.39	0.45	0.51	0.56	0.62	0.69	0.76	-	-	-	-
	0.706	17.93	-	-	0.34	0.37	0.41	0.47	0.53	0.59	0.65	0.72	0.79	-	-	-	-
3/4	0.750	19.05	0.29	0.33	0.36	0.40	0.41	0.50	0.55	0.63	0.68	0.77	0.85	-	-	-	-
	0.812	20.62	-	-	0.39	0.43	0.47	0.54	0.62	0.69	0.76	0.84	0.93	-	-	-	-
13/16	0.827	21.01	-	-	0.40	0.44	0.48	0.55	0.63	0.70	0.77	0.86	0.95	-	-	-	-
	0.840	21.34	-	-	0.41	0.45	0.49	0.56	0.64	0.71	0.79	0.88	0.96	-	-	-	-
7/8	0.875	22.23	0.34	0.38	0.43	0.47	0.48	0.59	0.64	0.74	0.82	0.92	1.01	-	-	-	-
	0.922	23.42	-	-	0.45	0.49	0.54	0.62	0.70	0.79	0.87	0.97	1.07	-	-	-	-
15/16	0.937	23.80	-	-	0.46	0.50	0.55	0.63	0.72	0.80	0.88	0.99	1.09	-	-	-	-
1	1.000	25.40	0.39	0.44	0.49	0.54	0.55	0.67	0.74	0.86	0.92	1.06	1.16	1.38	1.58	1.77	1.96
	1.024	26.01	-	-	0.50	0.55	0.60	0.69	0.79	0.88	0.97	1.08	1.19	-	-	-	-
	1.050	26.67	-	-	0.51	0.56	0.61	0.71	0.81	0.90	1.00	1.11	1.23	1.45	1.67	1.87	2.07
	1.080	27.43	-	-	0.53	0.58	0.63	0.73	0.83	0.93	1.03	1.15	1.27	1.50	1.72	1.94	2.14
1 1/8	1.125	28.58	-	-	0.55	0.61	0.66	0.76	0.87	0.97	1.07	1.20	1.32	1.56	1.80	2.03	2.24
	1.163	29.54	-	-	0.57	0.63	0.68	0.79	0.90	1.01	1.11	1.24	1.37	-	-	-	-
1 1/4	1.250	31.75	-	-	0.61	0.67	0.69	0.85	0.93	1.08	1.17	1.34	1.48	1.75	2.02	2.28	2.53
	1.315	33.40	-	-	0.65	0.71	0.77	0.90	1.02	1.14	1.26	1.41	1.56	1.85	2.13	2.41	2.68
1 3/8	1.375	34.93	-	-	0.68	0.74	0.81	0.94	1.07	1.20	1.33	1.48	1.64	1.94	2.24	2.53	2.81
	1.500	38.10	-	-	0.73	0.81	0.83	1.02	1.13	1.30	1.42	1.61	1.78	2.11	2.44	2.76	3.07
1 1/2	1.510	38.35	-	-	0.74	0.81	0.88	1.02	1.17	1.31	1.45	1.62	1.79	2.13	2.45	2.78	3.09
	1.580	40.13	-	-	0.77	0.85	0.93	1.07	1.22	1.37	1.52	1.70	1.88	2.23	2.58	2.94	3.28
	1.625	41.28	-	-	0.80	0.87	0.95	1.10	1.26	1.41	1.56	1.75	1.93	2.30	2.65	3.00	3.35
1 5/8	1.660	42.16	-	-	0.81	0.89	0.97	1.13	1.29	1.44	1.60	1.79	1.98	2.35	2.72	3.07	3.42
	1.690	42.93	-	-	0.83	0.91	0.99	1.15	1.31	1.47	1.63	1.82	2.01	2.40	2.77	3.13	3.49
	1.740	44.20	-	-	0.85	0.94	1.02	1.18	1.35	1.51	1.68	1.88	2.08	2.47	2.85	3.23	3.60
1 3/4	1.750	44.45	-	-	0.86	0.94	0.98	1.19	1.33	1.52	1.66	1.89	2.09	2.49	2.87	3.25	3.63
	1.826	46.38	-	-	0.90	0.98	1.03	1.24	1.42	1.59	1.76	1.98	2.18	2.60	3.00	3.41	3.80
1 7/8	1.875	47.63	-	-	0.92	1.01	1.07	1.28	1.46	1.64	1.81	2.03	2.24	2.67	3.09	3.50	3.91
	1.900	48.26	-	-	0.93	1.03	1.10	1.30	1.48	1.66	1.84	2.06	2.28	2.71	3.13	3.55	3.96
2	2.000	50.80	-	-	0.98	1.08	1.12	1.37	1.52	1.75	1.91	2.17	2.40	2.86	3.31	3.75	4.19
	2.197	55.80	-	-	-	-	1.29	1.50	1.71	1.92	2.13	2.39	2.65	3.15	3.65	4.15	4.63
2 1/4	2.250	57.15	-	-	-	-	1.33	1.54	1.71	1.97	2.16	2.45	2.71	3.23	3.75	4.25	4.75
	2.318	58.88	-	-	-	-	1.37	1.59	1.81	2.03	2.25	2.53	2.80	3.34	3.86	4.39	4.90
2 3/8	2.375	60.33	-	-	-	-	1.40	1.63	1.86	2.08	2.31	2.59	2.87	3.42	3.93	4.50	5.03
2 1/2	2.500	63.50	-	-	-	-	-	-	1.91	2.20	2.40	2.73	3.02	3.61	4.18	4.75	5.31
2 7/8	2.875	73.03	-	-	-	-	-	-	2.26	2.53	2.81	3.15	3.49	4.17	4.79	5.50	6.15
3	3.000	76.20	-	-	-	-	-	-	2.30	2.65	2.90	3.29	3.65	4.36	5.05	5.75	6.43

HSS . Disponible en grado A-500° B.

Dimension exterior		Espesor		Peso
Pulg.	mm.	Pulg.	mm.	kg./m.
6 x 6	152.4 x 152.4	3/16	4.76	21.62
		1/4	6.35	28.31
		5/16	7.94	34.73
		3/8	9.53	40.90
		1/2	12.70	52.44
8 x 4	203.2 x 101.6	3/16	4.76	21.62
		1/4	6.35	28.31
		5/16	7.94	34.73
		3/8	9.53	40.90
		1/2	12.70	52.44
8 x 6	203.2 x 152.4	3/16	4.76	25.42
		1/4	6.35	33.37
		5/16	7.94	41.07
		3/8	9.53	48.48
		1/2	12.70	62.58
8 x 8	203.2 x 203.2	3/16	4.76	29.21
		1/4	6.35	38.42
		5/16	7.94	47.38
		3/8	9.53	56.09
		1/2	12.70	72.70
10 x 4	254 x 101.6	5/8	15.88	88.28
		3/16	4.76	25.42
		1/4	6.35	33.36
		5/16	7.94	41.06
		3/8	9.53	48.48
10 x 6	254 x 152.4	1/2	12.70	62.58
		3/16	4.76	29.21
		1/4	6.35	38.42
		5/16	7.94	47.38
		3/8	9.53	56.09
10 x 8	254 x 203.2	1/2	12.70	72.70
		3/16	4.76	29.21
		1/4	6.35	38.42
		5/16	7.94	47.38
		3/8	9.53	56.09
10 x 10	254 x 254	1/2	12.70	82.83
		3/16	4.76	36.80
		1/4	6.35	48.56
		5/16	7.94	60.05
		3/8	9.53	71.28

Dimension exterior		Espesor		Peso
Pulg.	mm.	Pulg.	mm.	kg./m.
12 x 4	304.8 x 101.6	3/16	4.76	29.21
		1/4	6.35	38.42
		5/16	7.94	47.38
		3/8	9.53	56.09
		1/2	12.70	72.70
12 x 6	304.8 x 152.4	3/16	4.76	33.01
		1/4	6.35	43.50
		5/16	7.94	53.72
		3/8	9.53	63.68
		1/2	12.70	82.83
12 x 8	304.8 x 203.2	3/16	4.76	36.80
		1/4	6.35	48.56
		5/16	7.94	60.05
		3/8	9.53	71.28
		1/2	12.70	92.95
12 x 12	304.8 x 304.8	5/8	15.88	113.59
		1/4	6.35	58.68
		5/16	7.94	72.71
		3/8	9.53	86.46
		1/2	12.70	113.20
14 x 6	355.6 x 152.4	5/8	15.88	138.90
		5/16	7.94	60.05
		3/8	9.53	71.28
14 x 10	355.6 x 254	1/2	12.70	92.95
		5/16	7.94	72.71
		3/8	9.53	86.46
14 x 14	355.6 x 355.6	1/2	12.70	113.20
		5/16	7.94	85.36
		3/8	9.53	101.66
16 x 12	406.4 x 304.8	1/2	12.70	133.46
		5/8	15.88	164.23
		5/16	7.94	85.36
16 x 16	406.4 x 406.4	3/8	9.53	101.66
		1/2	12.70	133.46
		5/16	7.94	98.03
		3/8	9.53	116.85
		1/2	12.70	153.50
		5/8	15.88	189.55

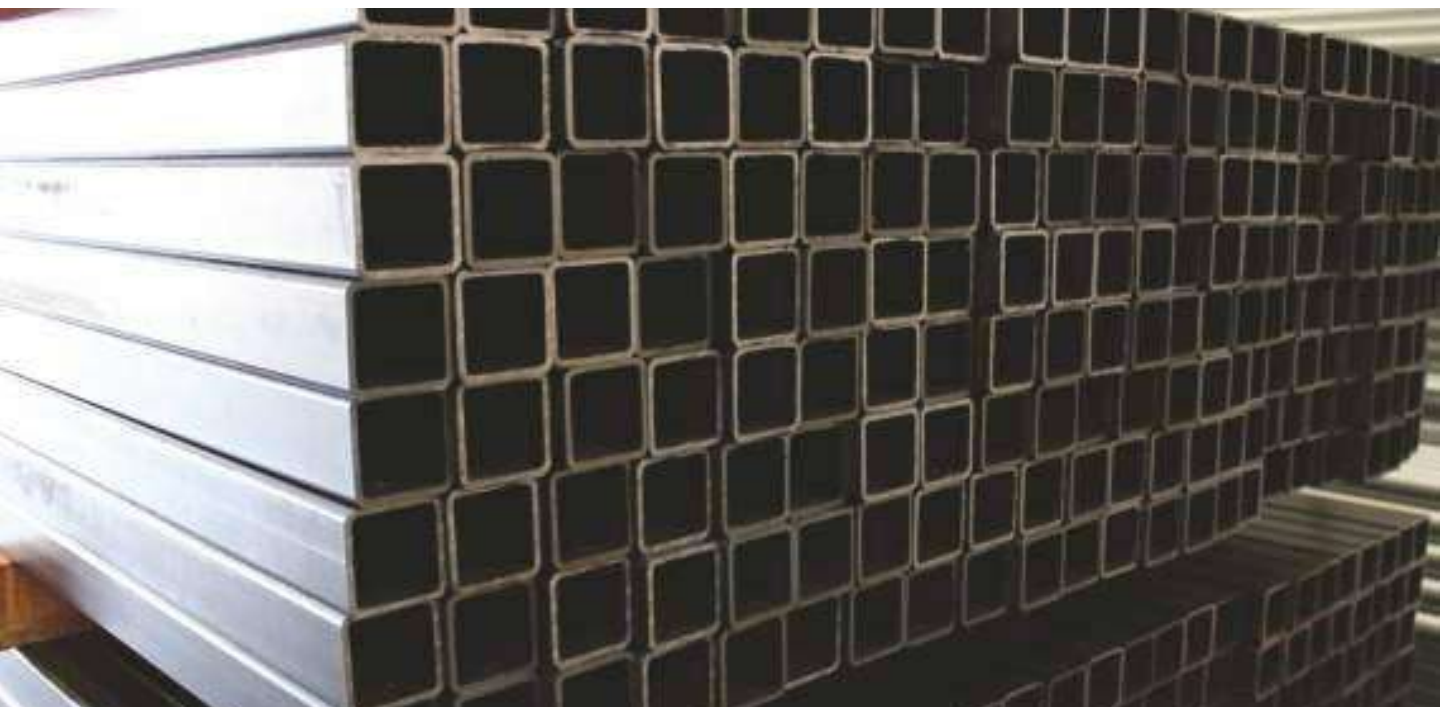
Rectangulares [PTR]

Medidas		Calibre	Espesor		Longitud	Peso
Pulg.	mm.		Pulg.	mm.	m.	kg./m.
2 x 1	50.8 x 25.4	14	0.075	1.90	6.00	2.24
		11	0.120	3.04	6.10	3.16
2 1/2 x 1 1/2	63.5 x 38.1	14	0.075	1.90	6.00	3.03
		12	0.105	2.67	6.00	4.16
3 x 1 1/2	76.2 x 38.1	14	0.075	1.90	6.00	3.43
3 x 2	76.2 x 50.8	14	0.075	1.90	6.00	3.82
		11	0.120	3.04	6.00	5.59
		10	0.135	3.42	6.00	6.22
		9	0.150	3.80	6.10	6.75
		8	0.164	4.18	6.00	7.44
		3/16"	0.188	4.76	6.10	8.33
4 x 1 1/2	101.6 x 38.1	14	0.075	1.90	6.00	4.22
4 x 2	101.6 x 50.8	14	0.075	1.90	6.00	4.61
		11	0.120	3.04	6.00	6.81
		9	0.150	3.80	6.00	8.26
		8	0.164	4.18	6.00	9.10
		3/16"	0.188	4.76	6.10	10.24
		1/4"	0.250	6.35	6.10	13.10
4 x 3	101.6 x 76.2	14	0.075	1.90	6.00	5.40
		11	0.120	3.04	6.00	8.02
		10	0.135	3.42	6.10	8.89
		9	0.150	3.80	6.00	9.75
		8	0.164	4.18	6.00	10.76
		5	0.209	5.31	6.00	13.97
		3/16"	0.188	4.76	6.10	12.14
		1/4"	0.250	6.35	6.10	15.63
5 x 3	127 x 76.2	14	0.075	1.90	6.10	5.87
		11	0.120	3.04	6.10	9.60
		10	0.135	3.42	6.10	10.24
		9	0.150	3.80	6.10	11.24
		8	0.164	4.18	6.10	12.44
		3/16"	0.188	4.76	6.10	14.00
		5	0.209	5.31	6.10	16.19
		1/4 "	0.250	6.35	6.10	18.15



(Rectangulares [PTR] continuación)

Medidas		Calibre	Espesor		Longitud	Peso
Pulg.	mm.		Pulg.	mm.	m.	kg./m.
6 x 2	152.4 x 50.8	14	0.075	1.90	6.10	5.87
		11	0.120	3.04	6.10	9.60
		10	0.135	3.42	6.10	10.24
		9	0.150	3.80	6.10	11.24
		8	0.164	4.18	6.10	12.44
		3/16"	0.188	4.76	6.10	14.00
		5	0.209	5.31	6.10	16.19
		1/4"	0.250	6.35	6.10	18.15
6 x 3	152.4 x 76.2	14	0.075	1.90	6.10	6.63
		11	0.120	3.04	6.10	10.24
		10	0.135	3.42	6.10	11.52
		9	0.150	3.80	6.10	13.02
		8	0.164	4.18	6.10	14.03
		3/16"	0.188	4.76	6.10	15.90
		5	0.209	5.31	6.10	18.40
		1/4"	0.250	6.35	6.10	20.67
6x4	152.4 x 101.6	14	0.075	1.90	6.10	7.39
		11	0.120	3.04	6.00	11.66
		10	0.135	3.42	6.10	13.18
		9	0.150	3.80	6.10	14.22
		8	0.164	4.18	6.10	16.13
		3/16"	0.188	4.76	6.10	17.85
		5	0.209	5.31	6.10	20.66
		1/4"	0.250	6.35	6.10	23.22



Cuadrados [PTR]

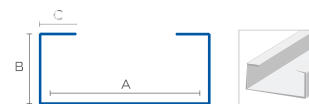
Medidas		Calibre	Espesor		Longitud	Peso
Pulg.	mm.		Pulg.	mm.	m.	kg./m.
3/4 x 3/4	19.05 x 19.05	14	0.075	1.90	6	1.06
1 x 1	25.4 x 25.4	14	0.075	1.90	6	1.46
		13	0.090	2.28	6	1.66
		12	0.105	2.67	6	1.95
		11	0.120	3.04	6	1.97
		10	0.135	3.42	6	2.13
1 1/4 x 1 1/4	31.75 x 31.75	14	0.075	1.90	6	1.85
		12	0.105	2.67	6	1.95
		11	0.120	3.04	6	1.97
		10	0.135	3.42	6	3.20
1 1/2 x 1 1/2	38.1 x 38.1	14	0.075	1.90	6	2.24
		12	0.105	2.67	6	3.07
		11	0.120	3.04	6	3.16
		10	0.135	3.42	6	3.49
1 3/4 x 1 3/4	44.45 x 44.45	14	0.075	1.90	6	2.64
		13	0.090	2.28	6	2.92
		12	0.105	2.67	6	3.46
		10	0.135	3.42	6	4.36
2 x 2	50.8 x 50.8	14	0.075	1.90	6	3.03
		12	0.105	2.67	6	4.17
		11	0.120	3.04	6	4.38
		10	0.135	3.42	6	4.86
		3/16"	0.188	4.76	6	6.43
		1/4"	0.250	6.35	6	8.04
2 1/4 x 2 1/4	57.15 x 57.15	14	0.075	1.90	6	3.15
		12	0.105	2.67	6	4.47
		11	0.120	3.04	6	4.97
		10	0.135	3.42	6	5.63
2 1/2 x 2 1/2	63.5 x 63.5	14	0.075	1.90	6	3.82
		12	0.105	2.67	6	5.27
		11	0.120	3.04	6	5.59
		10	0.135	3.42	6	6.22
		9	0.150	3.80	6	6.76
		8	0.164	4.18	6	7.44
		3/16"	0.188	4.76	6.1	8.33
		1/4"	0.250	6.35	6.1	10.57

(Cuadrados [PTR] continuación)

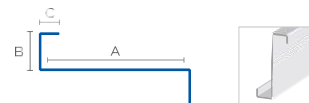
Medidas		Calibre	Espesor		Longitud	Peso
Pulg.	mm.		Pulg.	mm.	m.	kg./m.
3 x 3	76.2 x 76.2	14	0.075	1.90	6	4.61
		12	0.105	2.67	6.1	6.38
		11	0.120	3.04	6	6.80
		10	0.135	3.42	6	7.54
		9	0.150	3.80	6	8.26
		8	0.164	4.18	6	9.10
		3/16"	0.188	4.76	6.1	10.24
		1/4"	0.250	6.35	6.1	13.10
3 1/2 x 3 1/2	88.9 x 88.9	14	0.075	1.90	6	5.11
		11	0.120	3.04	6	8.02
		10	0.135	3.42	6	8.89
		9	0.150	3.80	6	9.75
		8	0.164	4.18	6	10.76
		3/16"	0.188	4.76	6.1	12.14
		5	0.209	5.31	6	15.63
		1/4"	0.250	6.35	6.1	18.16
4 x 4	101.6 x 101.6	14	0.075	1.90	6	6.19
		11	0.120	3.04	6	9.23
		10	0.135	3.42	6	10.24
		9	0.150	3.80	6	11.25
		8	0.164	4.18	6	12.44
		3/16"	0.188	4.76	6.1	14.04
		5	0.209	5.31	6	16.19
		1/4"	0.250	6.35	6	18.16
4 1/2 x 4 1/2	114.3 x 114.3	14	0.075	1.90	6	6.63
		11	0.120	3.04	6	10.24
		10	0.135	3.42	6	11.52
		9	0.150	3.80	6	13.02
		8	0.164	4.18	6	14.03
		3/16"	0.188	4.76	6.1	15.90
		5	0.209	5.31	6	18.40
		1/4"	0.250	6.35	6.1	20.67
5 x 5	127 x 127	14	0.075	1.90	6	7.39
		11	0.120	3.04	6	12.13
		10	0.135	3.42	6	13.18
		9	0.150	3.80	6	14.22
		8	0.164	4.18	6	16.13
		3/16"	0.188	4.76	6.1	17.85
		5	0.209	5.31	6	20.66
		1/4"	0.250	6.35	6.1	23.22

Polín tipo "C" y tipo "Z"

Tipo	Dimensión exterior (A x B)	Calibre	Longitud estándar	Peso
	Pulg.		(m.)	Kg./m.
3EP12	3 x 1 1/2	12	6	3.60
3EP14	3 x 1 1/2	14	6	2.61
3EP16	3 x 1 1/2	16	6	2.08
4EP10	4 x 1 1/2	10	6	5.20
4EP12	4 x 1 1/2	12	6	4.20
4EP14	4 x 1 1/2	14	6	3.00
4EP16	4 x 1 1/2	16	6	2.40
4EP10	4 x 2	10	4, 5 y 6	5.90
4EP12	4 x 2	12	4, 5 y 6	4.80
4EP14	4 x 2	14	4, 5 y 6	3.40
4EP16	4 x 2	16	4, 5 y 6	2.71
5EP10	5 x 2	10	5 y 6	6.60
5EP12	5 x 2	12	5 y 6	5.30
5EP14	5 x 2	14	5 y 6	3.80
5EP16	5 x 2	16	5 y 6	3.00
6EP10	6 x 2	10	6	7.30
6EP12	6 x 2	12	6	5.86
6EP14	6 x 2	14	6	4.19
6EP16	6 x 2	16	6	3.30
7EP10	7 x 2 3/4	10	7	9.20
7EP12	7 x 2 3/4	12	7	7.40
7EP14	7 x 2 3/4	14	7	5.30
7EP16	7 x 2 3/4	16	7	4.20
8EP10	8 x 2 3/4	10	8	9.90
8EP12	8 x 2 3/4	12	8	7.96
8EP14	8 x 2 3/4	14	6 y 8	5.70
8EP16	8 x 2 3/4	16	8	4.50
9EP10	9 x 2 3/4	10	9	10.60
9EP12	9 x 2 3/4	12	9	8.50
9EP14	9 x 2 3/4	14	9	6.10
9EP16	9 x 2 3/4	16	9	4.90
10EP10	10 x 2 3/4	10	10	11.23
10EP12	10 x 2 3/4	12	10	9.06
10EP14	10 x 2 3/4	14	10	6.49
10EP16	10 x 2 3/4	16	10	5.20
12EP10	12 x 3 1/2	10	12	13.62
12EP12	12 x 3 1/2	12	12	10.99
12EP14	12 x 3 1/2	14	12	7.87
14EP10	14 x 3 1/2	10	14	14.98
14EP12	14 x 3 1/2	12	14	12.10
14EP14	14 x 3 1/2	14	14	8.66



Polín tipo "C"



Polín tipo "Z"

Perfil Tubular Cuadrado

Calibre	Peso	
	kg./m.	kg./pieza
16	0.55	3.30
18	0.45	2.70
20	0.34	2.04
16	0.86	5.16
18	0.70	4.20
20	0.52	3.12
16	1.18	7.08
18	0.94	5.64
20	0.70	4.20
16	1.49	8.94
18	1.19	7.14
20	0.88	5.28
16	1.80	10.80
18	1.44	8.64
20	1.06	6.36
16	2.43	14.58
18	1.94	11.64
20	1.43	8.58
16	3.06	18.36

Perfil Tubular Rectangular

Calibre	Peso	
	kg./m.	kg./pieza
18	0.70	4.20
20	0.52	3.12
18	0.94	5.64
20	0.70	4.20
18	1.19	7.14
20	0.88	5.28
16	1.80	10.80
18	1.44	8.64
20	1.06	6.36
18	1.44	8.64
20	1.06	6.36
18	1.81	10.86
20	1.34	8.04
16	2.7	16.20
18	2.18	13.08
20	1.61	9.66
16	3.3	19.80
18	2.68	16.08
20	1.97	11.82



Alambre Galvanizado

Alambre con cubierta de zinc					
Calibre	Diámetro		Área transversal	Peso	Rendimiento
	pulg.	mm.			
8	0.162	4.11	13.30	0.104	9.6
8.5	0.155	3.94	12.17	0.095	10.5
9	0.148	3.77	11.14	0.087	11.5
9.5	0.142	3.61	10.22	0.080	12.5
10	0.135	3.43	9.23	0.072	13.9
10.5	0.128	3.25	8.30	0.065	15.4
11	0.121	3.06	7.36	0.057	17.4
11.5	0.113	2.87	6.47	0.051	19.7
12	0.106	2.68	5.64	0.044	22.8
12.5	0.099	2.51	4.97	0.039	25.7
13	0.092	2.32	4.24	0.033	30.4
13.5	0.086	2.18	3.75	0.029	34
14	0.080	2.03	3.24	0.025	39.5
14.5	0.076	1.93	2.93	0.023	43.8
15	0.072	1.83	2.63	0.021	48.8
15.5	0.067	1.70	2.27	0.018	56.3
16	0.063	1.59	1.98	0.015	64.7
18	0.048	1.21	1.14	0.009	111.1

Alambrón

Calibre	
mm.	pulg.
5.5	0.218
6.3	0.250
7.0	0.276
8.0	0.315
9.5	0.374
10.0	0.394
11.0	0.434
12.0	0.473



Alambre Pulido

Calibre	Diámetro		Área transversal mm. ²	Peso kg./m.	Rendimiento m./kg.	Resistencia a la tensión kg.F/cm. ²
	pulg.	mm.				
8	0.162	4.11	13.30	0.104	9.6	54-64
8.5	0.155	3.94	12.17	0.095	10.5	55-64
9	0.148	3.76	11.10	0.087	11.5	58-72
9.5	0.142	3.60	10.18	0.080	12.5	58-72
10	0.135	3.43	9.23	0.072	13.9	63-75
10.5	0.128	3.25	8.30	0.065	15.4	64-75
11	0.120	3.05	7.30	0.057	17.4	65-78
11.5	0.113	2.87	6.47	0.051	19.7	65-78
12	0.105	2.67	5.59	0.044	22.8	70-82
12.5	0.099	2.51	4.97	0.039	25.7	70-82
13	0.091	2.31	4.20	0.033	30.4	72-85
13.5	0.086	2.18	3.75	0.029	34.0	75-85
14	0.080	2.03	3.24	0.025	39.5	74-89
14.5	0.076	1.93	2.93	0.023	43.6	76-90
15	0.072	1.83	2.63	0.021	48.6	77-90
15.5	0.067	1.70	2.27	0.018	56.3	77-90
16	0.062	1.57	1.95	0.015	65.5	78-93

Alambre Recocido

Calibre	Diámetro		Diámetro interior		Rollo		Peso
					Diámetro exterior		
	mm.	pulg.	cm.	pulg.	cm.	pulg.	kg.
16	1.59	0.063	30	11.8	50	19.7	50

Clavo con Cabeza

Calibre	Longitud		Diámetro	
	pulg.	mm.	pulg.	mm.
8	4	102	0.162	4.11
8	3 1/2	89	0.162	4.11
10.5	3	76	0.128	3.25
11	2 1/2	64	0.120	3.05
12.5	2	51	0.099	2.51

Clavo para Concreto

Calibre	Longitud	
	pulg.	mm.
8	1	25
8	1 1/2	38
8	2	51
8	2 1/2	63
8	3	76
8	3 1/2	89
8	4	102



Malla Electrosoldada



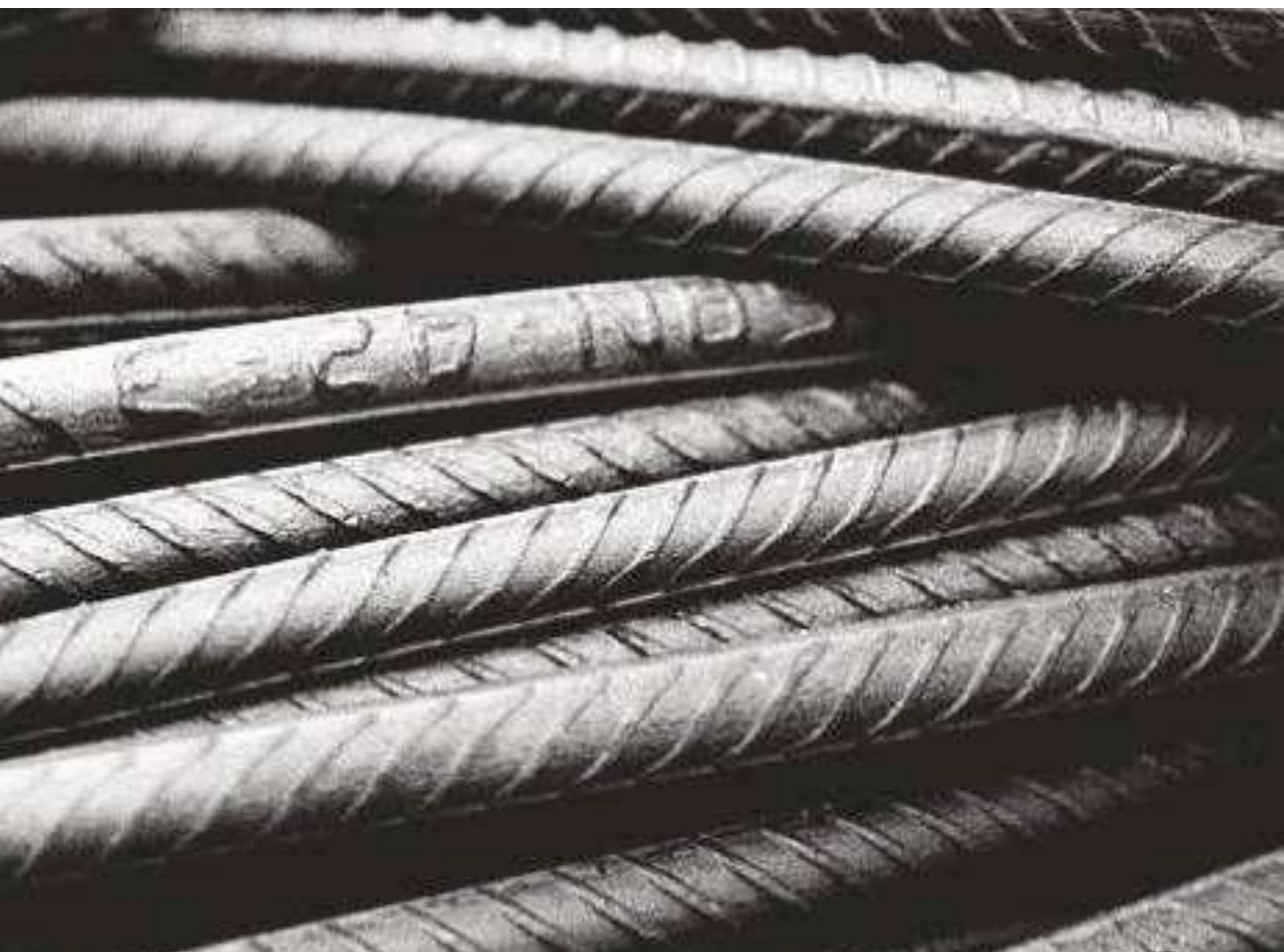
Presentación	Producto	Área	Dimensiones
		m. ²	(Ancho x largo) m.
Rollo	R-6x6-10/10	100	2.5 x 40
	R-6x6-08/08	100	2.5 x 40
	R-6x6-06/06	100	2.5 x 40
	R-6x6-04/04	100	2.5 x 40
Hoja	H-6x6-10/10	15	2.5 x 6
	H-6x6-08/08	15	2.5 x 6
	H-6x6-06/06	15	2.5 x 6
	H-6x6-04/04	15	2.5 x 6
	H-6x6-03/03	15	2.5 x 6
	H-6x6-02/02	15	2.5 x 6

Malla Ciclónica Galvanizada

Calibre	Diámetro		Diseño (abertura)	Altura	Longitud	Terminación
	mm	pulg.	mm	m	m	
	3.06	0.1205	55		20	nudo-púa
				.25		púa-púa
				.75		
			63	2.25	20	púa-púa
				2.5		
				.25		púa-púa
				.75		
				2.5		
			69		20	púa-púa
						nudo-nudo
				.25		púa-púa
				.25		nudo-nudo
						púa-púa
						nudo-nudo
				.75		púa-púa
				.75		nudo-nudo
						púa-púa
						nudo-nudo

Varilla Grado 6000

No. Designación (B)	Diámetro nominal (A)		Peso kg./m.	Área		Peso por varilla (6m.) kg.	No. Varillas/ton. (6m.)
	pulg.	mm.		mm. ²	pulg. ²		
2.5	5/16	7.94	0.384	49.51	0.077	2.30	434
2	1/4	6.35	0.248	31.67	0.049	1.49	672
1.5	3/16	4.76	0.140	17.80	0.028	0.84	1,190
1.25	5/32	3.97	0.097	12.38	0.019	0.58	1,718





REJILLA

Rejilla Electroforjada

Tipo de rejilla		Peso según tipo de rejilla (kg./m. ²)							
Soleras de carga		29		34		42		49	
Pulg.	mm.	N	C	N	C	N	C	N	C
3/16 x 3/4	5 x 19	24.59	28.59	28.14	32.14	33.02	37.82	38.79	42.79
1/8 x 1	3 x 25	22.27	26.27	25.42	28.42	30.40	34.46	34.87	38.87
3/16 x 1	5 x 25	31.55	35.55	36.30	40.30	43.90	47.90	50.55	54.55
1/8 x 1 1/4	3 x 32	26.83	30.83	30.86	34.86	37.18	41.18	42.71	46.71
3/16 x 1 1/4	5 x 32	38.51	42.51	44.46	48.46	53.98	57.98	62.31	66.31
1/8 x 1 1/2	3 x 38	31.40	35.40	35.96	39.96	43.18	47.48	50.06	54.08
3/16 x 1 1/2	5 x 38	45.32	49.32	52.28	56.28	63.64	67.64	73.58	77.58
3/16 x 2	5 x 50	59.10	63.10	68.60	72.60	83.80	87.80	97.10	101.10
3/16 x 2 1/2	5 x 63	74.62	79.22	86.70	91.29	106.00	110.61	122.91	127.51





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