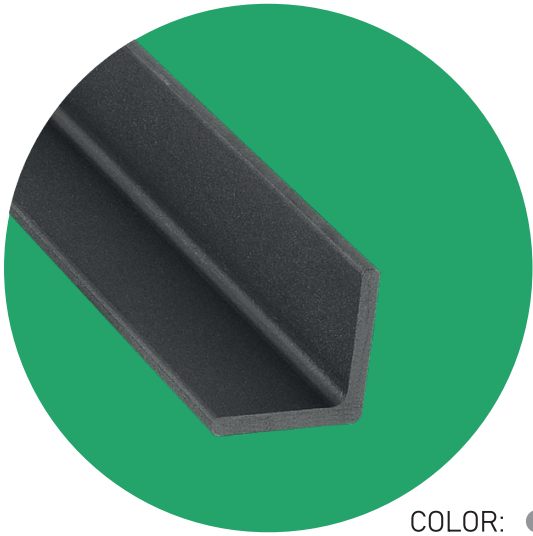
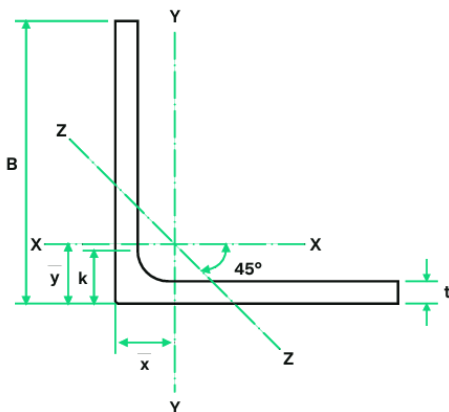
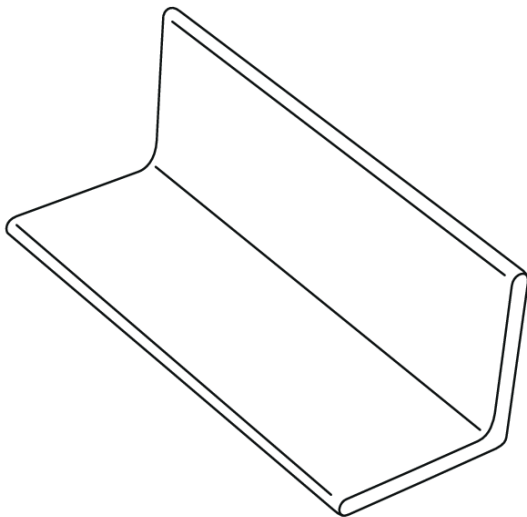


## ÁNGULO



COLOR: ●



### DESCRIPCIÓN

Figura angular de acero con lados iguales o desiguales adaptable a diversos usos en función de su espesor y propiedades mecánicas.

### USOS:

- Escaleras
- Registros
- Marcos
- Rieles de ventana
- Mesas, etc.

### CARACTERÍSTICAS:

- Laminado en caliente
- Lados de 3/4"

### VENTAJAS:

- Realización de prueba Charpy sobre pedido
- Longitudes de 6.1m y 12.2 m
- Uniformidad en las propiedades del acero

### NORMAS DE FABRICACIÓN

ASTM A-36 | A529-50  
| A572-50

# ÁNGULO

Sección Lado y espesor Nominales  (in.)	Peso  (kg/m)	DIMENSIONES				PROPIEDADES								
		Lado	Espesor	k	Área	Eje X-X y Eje Y-Y					Eje Z-Z			J
		B	t		A	I	S	r	$\bar{y}$ y $\bar{x}$	Z	I	S	r	
(mm)	(kg/m)	(mm)	(mm)	(mm)	(cm²)	(cm⁴)	(cm³)	(cm)	(cm)	(cm³)	(cm⁴)	(cm³)	(cm)	(cm⁴)
L 3/4 x 3/4 x 1/8	0.878	19.0	3.17	6.17	1.11	0.361	0.274	0.566	0.588	0.497	0.154	0.185	0.370	0.0373
L 1 x 1 x 1/8	1.19	25.4	3.17	6.17	1.51	0.907	0.506	0.770	0.747	0.913	0.378	0.358	0.497	0.0508
L 1 x 1 x 3/16	1.73	25.4	4.76	7.76	2.19	1.25	0.719	0.751	0.805	1.30	0.538	0.473	0.493	0.166
L 1 x 1 x 1/4	2.22	25.4	6.35	9.35	2.83	1.54	0.914	0.735	0.861	1.65	0.700	0.575	0.496	0.379
L 1 1/4 x 1 1/4 x 1/8	1.50	31.7	3.17	7.17	1.92	1.84	0.809	0.971	0.902	1.46	0.763	0.599	0.626	0.0644
L 1 1/4 x 1 1/4 x 3/16	2.20	31.7	4.76	8.76	2.80	2.57	1.16	0.952	0.963	2.09	1.08	0.795	0.618	0.211
L 1 1/4 x 1 1/4 x 1/4	2.86	31.7	6.35	10.3	3.63	3.20	1.48	0.934	1.02	2.68	1.39	0.965	0.617	0.488
L 1 1/2 x 1 1/2 x 1/8	1.83	38.1	3.17	7.17	2.32	3.25	1.18	1.18	1.06	2.13	1.34	0.895	0.755	0.0779
L 1 1/2 x 1 1/2 x 3/16	2.68	38.1	4.76	8.76	3.40	4.59	1.71	1.16	1.12	3.08	1.91	1.20	0.746	0.257
L 1 1/2 x 1 1/2 x 1/4	3.48	38.1	6.35	10.3	4.44	5.77	2.20	1.14	1.18	3.96	2.45	1.47	0.741	0.596
L 1 3/4 x 1 3/4 x 1/8	2.16	44.4	3.17	7.17	2.75	5.25	1.63	1.38	1.22	2.93	2.15	1.28	0.884	0.0915
L 1 3/4 x 1 3/4 x 3/16	3.17	44.4	4.76	8.76	4.04	7.47	2.36	1.36	1.28	4.26	3.08	1.74	0.873	0.303
L 1 3/4 x 1 3/4 x 1/4	4.14	44.4	6.35	10.3	5.27	9.47	3.05	1.34	1.34	5.50	3.96	2.14	0.866	0.705
L 2 x 2 x 1/8	2.46	50.8	3.17	9.52	3.17	7.87	2.11	1.57	1.36	3.77	3.15	1.63	0.993	0.122
L 2 x 2 x 3/16	3.63	50.8	4.76	11.1	4.66	11.3	3.08	1.55	1.42	5.54	4.54	2.25	0.988	0.383
L 2 x 2 x 1/4	4.75	50.8	6.35	12.7	6.09	14.4	4.00	1.54	1.49	7.21	5.91	2.80	0.983	0.870
L 2 x 2 x 5/16	5.83	50.8	7.94	14.3	7.48	17.2	4.88	1.52	1.55	8.80	7.16	3.28	0.980	1.64
L 2 x 2 x 3/8	6.99	50.8	9.52	15.9	8.84	19.8	5.70	1.50	1.61	10.3	8.45	3.72	0.980	2.74
L 2 1/2 x 2 1/2 x 3/16	4.57	63.5	4.76	11.1	5.81	22.3	4.83	1.96	1.74	8.67	8.70	3.54	1.22	0.475
L 2 1/2 x 2 1/2 x 1/4	6.10	63.5	6.35	12.7	7.68	28.8	6.34	1.94	1.81	11.4	11.5	4.49	1.22	1.09
L 2 1/2 x 2 1/2 x 5/16	7.44	63.5	7.94	14.3	9.42	34.8	7.77	1.92	1.87	14.0	14.1	5.34	1.22	2.06
L 2 1/2 x 2 1/2 x 3/8	8.78	63.5	9.52	15.9	11.16	40.5	9.14	1.90	1.93	16.6	16.6	6.11	1.22	3.47
L 2 1/2 x 2 1/2 x 1/2	11.5	63.5	12.7	19.0	14.58	50.8	11.7	1.87	2.04	21.1	21.9	7.52	1.22	7.83
L 3 x 3 x 3/16	5.52	76.2	4.76	14.3	7.03	39.5	7.10	2.37	2.06	12.7	15.5	5.34	1.49	0.566
L 3 x 3 x 1/4	7.29	76.2	6.35	15.9	9.29	51.2	9.32	2.35	2.12	16.7	20.4	6.80	1.49	1.30
L 3 x 3 x 5/16	9.08	76.2	7.94	17.5	11.48	62.4	11.5	2.33	2.18	20.6	25.2	8.13	1.48	2.48
L 3 x 3 x 3/8	10.7	76.2	9.52	19.0	13.61	72.8	13.5	2.31	2.25	24.3	29.8	9.34	1.48	4.20
L 3 x 3 x 1/2	14.0	76.2	12.7	22.2	17.81	91.6	17.4	2.27	2.36	31.3	38.4	11.5	1.47	9.57
L 3 1/2 x 3 1/2 x 1/4	8.63	88.9	6.35	15.9	10.97	83.2	12.9	2.77	2.42	23.1	33.4	9.80	1.75	1.61
L 3 1/2 x 3 1/2 x 5/16	10.7	88.9	7.94	17.5	13.55	102	15.9	2.74	2.49	28.5	41.0	11.7	1.74	3.04
L 3 1/2 x 3 1/2 x 3/8	12.6	88.9	9.52	19.0	16.13	119	18.8	2.72	2.54	33.8	48.7	13.5	1.73	5.12
L 3 1/2 x 3 1/2 x 1/2	16.5	88.9	12.7	22.2	20.97	151	24.3	2.67	2.67	43.6	62.9	16.6	1.72	11.7
L 4 x 4 x 1/4	9.82	102	6.35	15.9	12.45	125	16.9	3.17	2.74	29.8	49.5	12.7	1.99	1.82
L 4 x 4 x 5/16	12.2	102	7.94	17.5	15.48	153	20.8	3.15	2.82	37.0	60.8	15.3	1.98	3.46
L 4 x 4 x 3/8	14.6	102	9.52	19.0	18.45	180	24.6	3.12	2.87	44.1	72.0	17.7	1.98	5.87
L 4 x 4 x 7/16	16.8	102	11.1	20.6	21.29	205	28.3	3.10	2.92	50.8	82.8	20.0	1.97	9.16
L 4 x 4 x 1/2	19.0	102	12.7	22.2	24.19	230	32.1	3.07	3.00	57.4	93.7	22.1	1.97	13.4
L 4 x 4 x 5/8	23.4	102	15.9	25.4	29.74	276	39.0	3.05	3.10	70.1	115	26.1	1.97	25.4
L 5 x 5 x 5/16	15.3	127	7.94	20.6	19.81	310	33.4	3.96	3.43	59.8	125	25.9	2.51	4.50
L 5 x 5 x 3/8	18.3	127	9.52	22.2	23.55	365	39.5	3.94	3.48	71.0	148	30.0	2.50	7.62
L 5 x 5 x 7/16	21.3	127	11.1	23.8	27.23	416	45.6	3.91	3.56	81.9	168	33.8	2.50	11.8
L 5 x 5 x 1/2	24.1	127	12.7	25.4	30.90	470	51.6	3.89	3.61	92.8	193	37.5	2.49	17.4
L 6 x 6 x 5/16	18.5	152	7.94	20.6	23.68	541	48.3	4.78	4.06	86.2	216	37.7	3.02	5.37
L 6 x 6 x 3/8	22.2	152	9.52	22.2	28.26	641	57.5	4.75	4.11	103	258	44.1	3.02	9.07
L 6 x 6 x 7/16	25.6	152	11.1	23.8	32.77	733	66.5	4.72	4.19	119	293	50.0	3.00	14.2
L 6 x 6 x 1/2	29.2	152	12.7	25.4	37.23	828	75.2	4.72	4.24	135	335	55.7	3.00	20.9
L 6 x 6 x 9/16	32.6	152	14.3	27.0	41.61	916	83.9	4.70	4.32	150	370	61.1	3.00	29.3
L 6 x 6 x 5/8	36.0	152	15.9	28.6	46.00	1003	92.4	4.67	4.37	166	408	66.2	2.97	39.8
L 6 x 6 x 3/4	42.7	152	19.0	31.7	54.58	1170	109	4.62	4.50	195	483	75.9	2.97	67.0
L 6 x 6 x 1	55.7	152	25.4	38.1	70.97	1473	140	4.55	4.72	252	620	93.4	2.97	153

Estándar				
ASTM		A36	A529 Grado 50	A572 Grado 50
CSA		-	-	-
Resistencia a la Tensión (kg/mm²)	Espec			
	min	41	45	45
	max	56	70	-
Límite de Fluencia (kg/mm²)	min	25	35	35
	max	-	-	-

Calidad Acero	F <sub>y</sub> (kg/cm²)	F <sub>u</sub> (kg/cm²)
ASTM A36	2530 Mín.	4080 - 5625
ASTM A529-50	3515 Mín.	4570 - 7030
ASTM A572-50	3515 Mín.	4570 Mín.
ASTM A36/ A529-50	3515 Mín.	4080 - 5625

F<sub>y</sub> = Esfuerzo de Fluencia  
F<sub>u</sub> = Resistencia a la Tensión