



ALCOA

Alcoa Engineered Products

ECON-O-PLATE™

Close Tolerance Extruded Aluminum Bar



Cost-Saving Alternative to Rolled Plate

- BETTER FLATNESS THAN STANDARD EXTRUDED BAR
— .004" per inch of width for widths 6" through 18" and thicknesses .250" through 4.000"
- MINIMUM YIELD STRENGTH AND ELONGATION EQUIVALENT TO 6061 ROLLED PLATE
- PRODUCED IN ALLOYS 6061-T6511 AND 6262-T6511, BOTH STRESS-RELIEVED TEMPER

ECON-O-PLATE™, from Alcoa Engineered Products, takes full advantage of the extrusion process by offering closer tolerances on flatness than standard extruded bar. The ECON-O-PLATE product is well suited for wide bar requirements, since its minimum yield strength and elongation are equivalent to 6061 rolled plate.

ECON-O-PLATE close tolerance extruded aluminum bar is available in standard thicknesses from 0.250" up to 4.000", widths up to 18.000" and in standard 12' lengths. Custom lengths are also available upon special request. With a selection of over 159 sizes, sawing to width can be eliminated, resulting in less material waste and reduced processing time.



Automotive wheel machined from ECON-O-PLATE product

ECON-O-PLATE close tolerance extruded aluminum bar satisfies a broad range of applications...and at a significant cost saving over rolled plate. The ECON-O-PLATE product also offers other important advantages over higher cost rolled plate:

- Better lead time
- Lower minimum mill quantity per item
- Easier storage, handling and processing
- Less saw cuts for lower processing costs

COMPARATIVE THICKNESS TOLERANCES

Selected Thickness (Inches)	6061-T6511 Alcoa Extruded ECON-O-PLATE™ Product Tolerance (Inches)		6061-T651 Rolled Plate Tolerance (Inches)
	Widths Less Than 10"	Widths 10" and Greater	
3/8	+ .008 / - .008	+ .016 / - .016	± .017
1/2	+ .009 / - .009	+ .017 / - .017	± .023
3/4	+ .010 / - .010	+ .018 / - .018	± .031
1	+ .012 / - .012	+ .019 / - .019	± .039
1-1/2	+ .014 / - .014	+ .024 / - .024	± .039
2	+ .024 / - .024	+ .034 / - .034	± .055
3	+ .024 / - .024	+ .034 / - .034	± .075
4	+ .034 / - .034	+ .044 / - .044	± .130

STRAIGHTNESS TOLERANCE

Length	Extruded ECON-O-PLATE™ Straightness Tolerance	Standard Sheet & Plate Longitudinal Flatness Tolerance
6 Feet	.075"	.188"
12 Feet	.150"	.188"

**CERTIFIED TO ASTM B 221
(Alloys/Tempers 6061-T6,
-T6511 and 6262-T6, -T6511)**

COMPARATIVE ECON-O-PLATE CHARACTERISTICS

Property	6061-T6511 EXTRUDED ECON-O-PLATE™ PRODUCT	Close Tolerance 6061 Rolled Plate
TRANSVERSE FLATNESS	.024" TO .072" ⁽¹⁾ MAX DEVIATION	.100" TO .125" ⁽²⁾ MAX DEVIATION
MINIMUM ULTIMATE (LONGITUDINAL DIRECTION)	38,000 PSI	42,000 PSI
MINIMUM YIELD (LONGITUDINAL DIRECTION)	35,000 PSI	35,000 PSI
MINIMUM % ELONGATION (LONGITUDINAL DIRECTION)	10%	6-9%*
SPECIFICATIONS	ASTM B 221 ASME SB 221	ASTM B 209 ASME SB 209

NOTES:

- (1) IN 6" TO 18" WIDTH.
- (2) IN 3 FT. TO 4 FT. WIDTH.
- * Depending on thickness

Flatness-Short Span (in any equivalent 24" dimension)

**ECON-O-PLATE™
.150" Max. Deviation**



- (1) Maximum Deviation From Total Flatness For 14" Wide Bar. Total Flatness (Which Includes Twist, Straightness and Transverse Flatness) Is Not To Exceed .150" In Any 2 Ft. Or Less Of Length And .450" For Lengths Up Thru 6 Ft. With Extrusion Resting On Flat Surface.
- (2) In Plate - Short Span Flatness Is The Deviation From Flat Over Full Span For Spans 2 Ft. And Less As Measured With The Plate Resting On A Flat Surface.



Alcoa Engineered Products

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Standard Sizes

THICKNESS x WIDTH (")	WT./FT.	SECTION NO.
.250 x 6.000	1.764	505000
.250 x 7.000	2.058	505001
.250 x 8.000	2.352	505002
.250 x 9.000	2.646	505003
.250 x 10.000	2.940	505004
.250 x 12.000	3.528	505005
.250 x 14.000	4.116	505006
.375 x 6.000	2.646	505014
.375 x 7.000	3.087	505015
.375 x 8.000	3.528	505016
.375 x 9.000	3.969	505017
.375 x 10.000	4.410	505018
.375 x 12.000	5.292	505019
.375 x 14.000	6.174	505020
.500 x 6.000	3.528	505021
.500 x 7.000	4.116	505022
.500 x 8.000	4.704	505023
.500 x 9.000	5.292	505024
.500 x 10.000	5.880	505025
.500 x 12.000	7.056	505026
.500 x 14.000	8.232	505027
.500 x 18.000	10.584	518129
.625 x 6.000	4.410	505028
.625 x 7.000	5.145	505029
.625 x 8.000	5.880	505030
.625 x 9.000	6.615	505031
.625 x 10.000	7.350	505032
.625 x 12.000	9.000	505033
.625 x 13.000	9.555	519309
.625 x 14.000	10.290	505034
.625 x 16.000	11.760	517332
.629 x 16.000	11.835	531394
.750 x 6.000	5.292	505035
.750 x 7.000	6.174	505036
.750 x 8.000	7.056	505037
.750 x 9.000	7.938	505038
.750 x 10.000	8.820	505039
.750 x 12.000	10.584	505040
.750 x 13.000	11.466	516064
.750 x 14.000	12.348	505041

THICKNESS x WIDTH (")	WT./FT.	SECTION NO.
.750 x 15.000	13.230	519312
.750 x 16.000	14.112	519308
.750 x 18.000	15.876	533839
.875 x 8.000	8.232	505044
.875 x 9.000	9.261	505045
.875 x 12.000	12.348	505047
.875 x 13.000	13.377	516065
.875 x 14.000	14.406	505048
.875 x 15.000	15.435	531491
.875 x 16.000	16.464	532992
1.000 x 6.000	7.056	505049
1.000 x 7.000	8.232	505050
1.000 x 8.000	9.408	505051
1.000 x 9.000	10.584	505052
1.000 x 10.000	11.760	505053
1.000 x 12.000	14.112	505054
1.000 x 13.000	15.288	516421
1.000 x 14.000	16.464	505055
1.000 x 15.000	17.640	519306
1.000 x 16.000	18.816	533196
1.000 x 17.000	19.992	533353
1.000 x 18.000	21.168	518400
1.000 x 19.000	22.344	533354
1.125 x 12.000	15.876	517207
1.125 x 12.500	16.537	517356
1.125 x 13.000	17.199	516066
1.125 x 13.500	17.860	517357
1.250 x 6.000	8.820	505056
1.250 x 7.000	10.290	505057
1.250 x 8.000	11.760	505058
1.250 x 9.000	13.230	505059
1.250 x 10.000	14.700	505060
1.250 x 12.000	17.640	505061
1.250 x 12.500	18.375	516067
1.250 x 13.000	19.110	517208
1.250 x 13.125	19.687	506751
1.250 x 13.500	19.845	516068
1.250 x 14.000	20.580	505062
1.250 x 15.000	22.050	519315
1.250 x 16.000	23.520	530310

Available in 6061-T6, -T6511 and 6262-T6, -T6511 alloys; standard 12' lengths.

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Standard Sizes

THICKNESS x WIDTH (")	WT./FT.	SECTION NO.
1.250 x 18.000	26.460	533840
1.375 x 12.000	19.404	516720
1.375 x 12.500	20.213	519310
1.375 x 13.000	21.021	515773
1.375 x 13.500	21.830	518233
1.375 x 14.000	22.638	516717
1.375 x 15.000	24.255	519314
1.500 x 6.000	10.584	505063
1.500 x 7.000	12.348	505064
1.500 x 8.000	14.112	505065
1.500 x 10.000	17.640	505067
1.500 x 12.000	21.168	505068
1.500 x 12.500	22.050	517040
1.500 x 13.000	22.932	517209
1.500 x 13.500	23.814	517041
1.500 x 14.000	24.696	505069
1.500 x 15.000	26.460	517210
1.500 x 18.000	31.752	533841
1.625 x 12.000	22.932	516719
1.625 x 12.500	23.887	516069
1.625 x 13.000	24.843	516812
1.625 x 13.500	25.799	516070
1.625 x 14.000	26.754	516813
1.625 x 15.000	28.665	517042
1.625 x 16.000	30.576	519518
1.750 x 12.000	24.696	505075
1.750 x 12.500	25.725	515774
1.750 x 13.000	26.754	516814
1.750 x 13.500	27.783	515775
1.750 x 14.000	28.812	505076
1.750 x 15.000	30.870	516716
1.750 x 16.000	32.928	516420
1.750 x 18.000	37.044	533849
2.000 x 6.000	14.112	505077
2.000 x 7.000	16.800	505078
2.000 x 8.000	18.816	505079
2.000 x 10.000	23.520	505081
2.000 x 12.000	28.224	505082
2.000 x 12.500	29.400	515776
2.000 x 13.000	30.576	516718

THICKNESS x WIDTH (")	WT./FT.	SECTION NO.
2.000 x 13.500	31.752	515778
2.000 x 14.000	32.928	505083
2.000 x 15.000	35.280	516715
2.000 x 16.000	37.632	516419
2.125 x 16.000	39.984	533197
2.250 x 12.500	33.075	516071
2.250 x 13.000	34.398	516815
2.250 x 13.500	35.721	516816
2.250 x 14.000	37.044	514770
2.250 x 15.000	39.690	530423
2.250 x 16.000	42.336	533266
2.375 x 12.500	34.913	516073
2.375 x 13.000	36.309	516817
2.375 x 13.500	37.706	516074
2.375 x 14.000	39.102	516818
2.375 x 15.000	41.895	530422
2.375 x 16.000	44.688	533198
2.500 x 8.000	23.520	514900
2.500 x 13.000	38.222	516510
2.500 x 13.500	39.690	517043
2.500 x 14.000	41.160	517044
2.500 x 15.000	44.100	518234
2.500 x 16.000	47.040	519519
2.750 x 13.000	42.042	516416
2.750 x 13.500	43.659	516417
2.750 x 14.000	45.276	517045
2.750 x 15.000	48.510	518235
2.750 x 16.000	51.744	530311
3.000 x 13.000	45.864	516508
3.000 x 13.500	47.628	516509
3.000 x 14.000	49.392	514021
3.000 x 15.000	52.920	518236
3.000 x 16.000	56.448	516418
3.250 x 13.000	49.686	516711
3.250 x 13.500	51.597	516710
3.250 x 16.000	61.152	519520
3.500 x 14.000	57.624	530425
4.000 x 14.000	65.856	533662
4.000 x 16.000	75.264	519521

Available in 6061-T6, -T6511 and 6262-T6, -T6511 alloys; standard 12' lengths.