

Fidelity Stainless



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304/L Square Bar

MATERIAL SPECIFICATIONS

PREPARED BY: M. POPE

REVISION DATE: 05/25/23

MATERIAL	STAINLESS SQUARE BAR 304/304L R/L 12-14'	COLD DRAWN DUEL CERTIFIED
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SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS AISI 304,304L UNS# S30400/S30403 ASTM A182, ASTM A193 B8 CL1, ASTM A262 PRACTIC E, ASTM A 276, ASTM A314, ASTM A320 B8 CL1, ASTM A338, ASTM A479, ASTM A484 ASME SA182, ASME SA193 B8 CL1, ASME SA 320 B8 CL1, ASME SA479 AMS 5639, AMS 5647, QQ-S-763F COND A, MIL-S-862 B, NACE MR 0175, NACE MR 0103, EN 10204-3.1
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<u>CHEMICAL ANALYSIS</u>	<u>MECHANICAL PROPERTIES</u>
Carbon (C) .03	Tensile Strength up to 1/2" 90/125 KSI
Chromium (Cr) 18.00/20.00	(U.T.S.) over 1/2" 75 KSI
Cobalt (Co) aim .10 max	Yield Strength under 1/2" 45 KSI
Copper (Cu) 1.00 aim .75 max	(Yield) over 1/2" 30 KSI
Manganses (Mn) 2.00 aim 1.50-1.75	Elongation under 1/2" 30%
Molybdenum (Mo) 1.00 aim .75 max	(Ei. or Elong.) over 1/2" 40%
Nickel (Ni) 8.00/12.00	Reduction of Area under 1/2" 40%
Nitrogen (N) .10	(R.A. or Red.) over 1/2" 50%
Phosphorous (P) .045	Hardness 140/241 Max BHN
Silicon (Si) 1.00	(RB,RC,or BHN) aim 170-223
Sulfur (S) .03 aim .02-.03	

All singular chemistry values are
MAXIMUM unless otherwise noted

All mechanical properties are
MINIMUM unless otherwise noted

OTHER TEST(S) AND/OR REQUIREMENTS

INTERGRANULAR CORROSION TEST (FREE FROM CONTINUOUS CARBIDE)
AS PER ASTM A262 PRACTICE E
MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY
MERCURY FREE CONTAMINATION STATEMENT
FREE FROM RADIOACTIVE CONTAMINATION
NO WELDING OR WELD REPAIR STATEMENT
REPORT GRAIN SIZE PER ASTM E112-96
SOLUTION ANNEALED CONDITION A PER ASTM A479 AT 1040C/1900F MINIMUM AND WATER QUENCHED
FINISHED CONDITION. MELT AND HOT WORKING PRACTICES MUST BE REPORTED
GRADE AND HEAT NUMBER MUST BE METAL STAMPED AT BOTH ENDS ON SIZES 1" DIA AND LARGER
COLOUR CODE RED
BUNDLE WEIGHT - 2200 LBS MAXIMUM

IMPORTANT:

ORIGINAL CERTIFICATES OF CHEMICAL & PHYSICAL ANALYSIS REQUIRED TWO (2) WEEKS BEFORE
SHIPMENT ARRIVES
ALL TEST REPORTS MUST STATE COUNTRY OF ORIGIN
TEST REPORTS MUST HAVE THE SIGNATURE NAME AND TITLE PRINTED
ALL TEST REPORTS MUST BE SIGNED BY AUTHORIZED PERSON