

Fidelity Stainless



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304/L Round Bar 1 To 4 Inch

MATERIAL SPECIFICATIONS

PREPARED BY: M. POPE

REVISION DATE: 05/25/23

MATERIAL	STAINLESS ROUND BAR 304/304L 1" TO 4"	SMOOTH TURNED 12-14' R/L	RMS 50 DUAL CERTIFIED
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SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS AISI 304,304L UNS# S30400/S30403, DIN# WNR 1.4301/1.4307 ASTM A182, ASTM A193 B8 CL1, ASTM A262 PRACTICE E, ASTM A276. ASTM A314, ASTM A320 B8 CL1, ASTM A388, ASTM A479, ASTM A484 ASME SA182, ASME SA193 B8 CL1, ASME SA320 B8 CL1, ASME SA479 AMS 5639, AMS 5647, SAE-AMS-S-7720A, QQ-S-763F COND A, MIL-S-862 B, NACE MR 0175, MR 0103, EN 10088-3, EN 10204-3.1, EN 10222-5, EN 10272,
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<u>CHEMICAL ANALYSIS</u>			<u>MECHANICAL PROPERTIES</u>	
Carbon (C)	.03		Tensile Strength (U.T.S.)	75 KSI
Chromium (Cr)	18.00/20.00		Yield Strength (Yield)	30KSI
Cobalt (Co)		aim .10 max	Elongation (Ei. or Elong.)	40%
Copper (Cu)	1.00	aim .75 max	Reduction of Area (R.A. or Red.)	50%
Manganes (Mn)	2.00	aim 1.50-1.75	Hardness (RB,RC,or BHN)	140/241 Max aim 170-223
Molybdenum (Mo)	1.00	aim .75 max		
Nickel (Ni)	8.00/10.50			
Nitrogen (N)	.10			
Phosphorous (P)	.045			
Silicon (Si)	1.00			
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 A262-02 PRACTICE E

MACRO ETCH TEST & MICRO STRUCTURE TO BE SATISFACTORY

ULTRASONIC TESTED AS PER ASTM A388

MERCURY FREE CONTAMINATION STATEMENT

FREE FROM RADIOACTIVE CONTAMINATION

NO WELDING OR WELD REPAIR STATEMENT

REPORT GRAIN SIZE PER ASTM E112-96

SOLUTION ANNEALED PER ASTM A479 AT 1040C/1900F MINIMUM AND WATER QUENCH

HEAT TREATMENT TEMPERATURE AND TIME (HOURS SOAKED) MUST BE REPORTED

FINISHED CONDITION RMS 50 MAX, MELT AND HOT WORKING PRACTICES (FORGED OR ROLLED) 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 NAME AND TITLE PRINTED

ALL TEST REPORTS MUST BE SIGNED BY AUTHORIZED PERSON