

Sample Measurements with the Ferromaster

Jul 16, 2021

Metal samples



McMASTER-CARR

618052

Packing Li

200 New Canton Way
Robbinsville NJ 08691-2343
609-689-3000
nj.sales@mcmaster.com

J S A LLC
Jefferson Lab
12000 Jefferson Ave Ste 12
Newport News VA 23606
Attention: David Kashy

Purchase Order
0714DKASHY
Order Placed By
David Kashy

McMaster-Carr Number
2020847-02

Page 1 of

07/14/20

Credit Card 07/15/21 83

Line	Product	Ordered	Shipped
1	8786K104 High-Strength 625 Nickel Sheet, 0.375" Thick, 6" Wide x 6" Long	1 Each	1
2	9246K483 Multipurpose 6061 Aluminum, 7/16" Thick, 6" x 6"	1 Each	1
3	4058T74 Marine-Grade 5083 Aluminum, 3/8" Thick, 6" x 6"	1 Each	1
5	9084K45 Easy-to-Machine 303 Stainless Steel Bar, 3/8" Thick, 1-1/4" Wide, 1/2 Feet Long	1 Each	1
6	8983K212 Multipurpose 304 Stainless Steel Sheet, 6" x 6", 3/8" Thick	1 Each	1
7	4816TJ3 Easy-to-Machine Corrosion-Resistant 316 Stainless Steel Sheet, 3/8" Thick, 3" x 3"	1 Each	1
8	8885K911 High-Strength 7075 Aluminum Sheet, 3/8" Thick, 6" x 6"	1 Each	1
9	89215K114 High-Strength 2024 Aluminum Bar, 3/8" Thick x 2" Wide, 1/2 Feet Long	1 Each	1
10	9055K11 High-Strength 7075 Aluminum Bar, 1/2" Thick x 1" Wide, 1/2 Feet Long	1 Each	1
11	86705K12 Wear-Resistant 410 Stainless Steel Rod, 1" Diameter, 1/2 Feet Long	1 Each	1
12	93516A176 Bronze Hex Head Screw, 1/2"-13 Thread, 6-1/2" Long, Packs of 1	1 Pack	1
13	92049A032 Bronze Extra-Wide Hex Nut, 1/2"-13 Thread Size, Packs of 1	1 Pack	1

Shipped separately from our Chicago warehouse on 07/14

4	5865T76 Easy-to-Form Marine-Grade 5086 Aluminum, 0.375" Thick, 6" x 6"	1 Each	1
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Metal samples from McMaster Carr



#1
Inco 625

Line
2
on your packing list

132006801
Line
3
on your packing list

Nov 20

#7

Line
8
on your packing list

Line
9
on your packing list

#10

McMASTER-CARR
Line
11
on your packing list

Sarah Wenberg
Compliance Manager

132006801

Line
3
on your packing list

4
Nov Lot # 04L03789

#5

Line
6
on your packing list

#10

McMASTER-CARR

Line
11
on your packing list

McMASTER-CARR

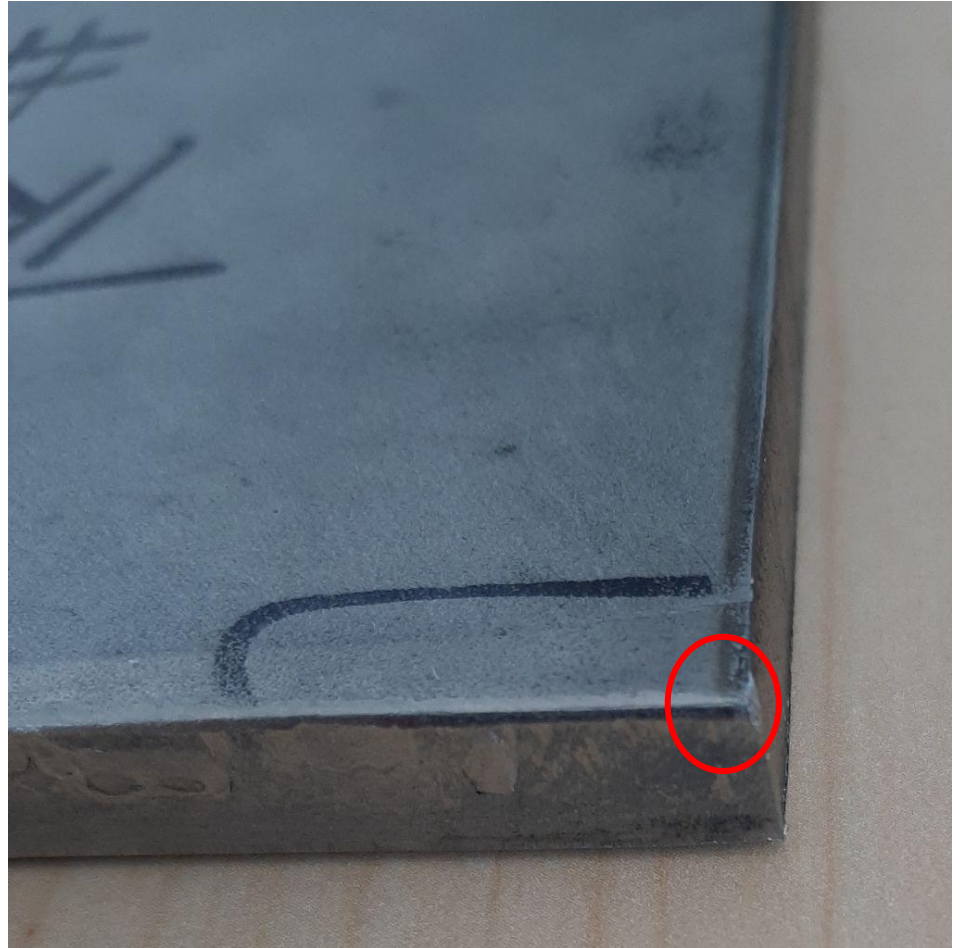
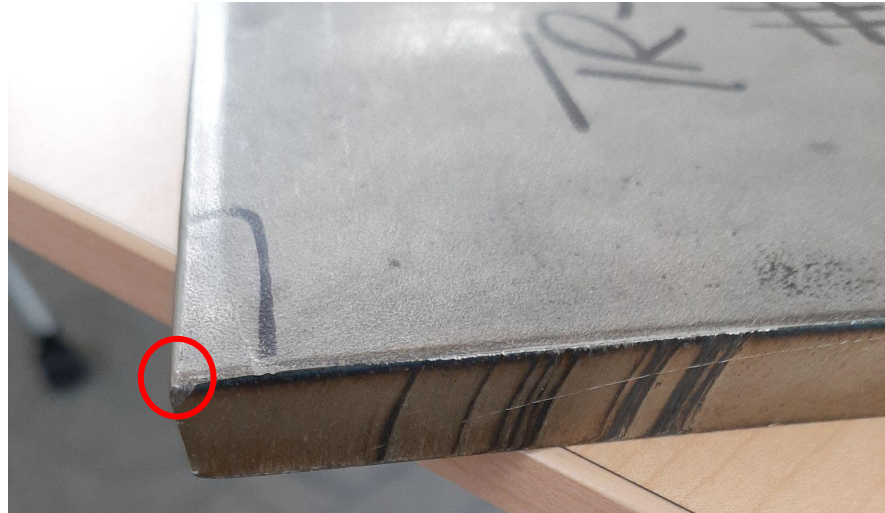
Line
12
on your packing list

McMASTER-CARR

Line
13
on your packing list



Hot spot on corner of
Inconel $\mu_r > 1.005$



		Don's Measurements									
		7/16/21									
Line Number of order	Material	Central measurements				Edge measurements				Avg central	Average edge
		#1	#2	#3	#4	#1	#2	#3	#4		
1	Inconel 625	1.000	1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.0006	1.0006
2	AL 6061-T6	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
3	AL 5083	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
4	AL 5086	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
5	303 SST	1.005	1.006	1.006	1.007	1.006	1.009	1.010	1.010	1.0074	1.0088
6	304 SST	1.095	1.061	1.071	1.103	1.410	1.578	1.540	1.646	1.3130	1.5435
7	316 SST	1.007	1.007	1.007	1.007	1.065	1.055	1.061	1.052	1.0326	1.0583
8	AL 7075	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
9	AL 2024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
10	AL 7075	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
11	410 SST Round bar 1 inch dia	>1.999	>1.999	>1.999	>1.999	>1.999	>1.999	>1.999	>1.999	>1.999	>1.999
12	Silicon Bronze Bolt 1/2-UNC 6.5 lg	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000
13	Silicon Bronze Nut Wide 1/2-UNC	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.0000

Grinding hot spot

I used a small grinding wheel in a Dremel tool to lightly grind the surface on the Inconel stock around the hot spot on the corner. After grinding, the hot spot was gone. The corner then read 1.001 like the remainder of the sample.

Inconel hot spot before grinding



Inconel hot spot after grinding with Dremel

