

Original Date
January 22, 2020

Revision Date
January 24, 2020

Malcolm MacDougall
Servometer
501 Little Falls Road
Cedar Grove, NJ 07009

cc: Joe Madonna

PO Number
SVP200445

Date Received
January 13, 2020

Description
Standard Nickel

Reference Date
January 2020

TEST REPORT

IMR Report Number 202000612A – Revision 1 (Remeasured Thickness)

SUMMARY

Two samples were received for tensile testing.

The results are below.

TENSILE PROPERTIES – ROOM TEMPERATURE¹

	Tensile Strength (ksi)	Yield Strength (ksi)	Elongation (%)
Sample	178	134	2.9

¹Average of two replicates

The width of the samples was 0.37 inches; gauge length was 2.00 inches. Yield strength was determined by the 0.2% offset method. Crosshead speed was 0.01 in./min. to yield and 0.1 in./min. to fracture. Method(s): ASTM E 8-16a



Reviewed by

Lisa Wackowicz
Technical Operations Coordinator

Reviewed by

Jim Andrews, CWI
Manager, Mechanical & Machine Shop



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IMR TEST LABS

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January 22, 2020

TEST REPORT

Malcolm MacDougall
Servometer
501 Little Falls Road
Cedar Grove, NJ 07009

IMR Report Number 202000612E

cc: Joe Madonna

SUMMARY

One sample was received for hardness testing.

PO Number
SVP200445

The results are below.

Date Received
January 13, 2020

HARDNESS

Description
Standard Nickel

	HV ₁₀₀ ¹
Sample	461

Reference Date
January 2020

¹Average of three readings.
Method(s): ASTM E 384-17



Reviewed by

Reviewed by



Cheryl Downey
Senior Metallurgical Specialist

Jim Andrews, CWI
Manager, Mechanical & Machine Shop

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TEST REPORT

IMR Report Number 202000612I

January 22, 2020

Malcolm MacDougall
Servometer
501 Little Falls Road
Cedar Grove, NJ 07009

cc: Joe Madonna

PO Number
SVP200445

Date Received
January 13, 2020

Description
Standard Nickel

Reference Date
January 2020

SUMMARY

One sample was received for chemical analysis.

The results are below.

CHEMISTRY

Element	Sample
Ni Alloy	99.88
Ni ¹	96.29
S ²	0.012

¹Determined by difference.

²Determined by combustion-infrared absorbance.

Results in weight percent unless otherwise indicated.

Method(s): CAP-017Q (ICP-AES) and ASTM E 1019-18 (Comb./IGF)



Reviewed by

Lisa M Wackowicz

Reviewed by

Mike St. Phillips



Lisa Wackowicz
Technical Operations Coordinator

Mike St. Phillips
Staff Chemist

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