

IMR TEST LABS

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May 30, 2018

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

TEST REPORT

IMR Report Number 201805857A

cc: Joe Madonna

PO Number
SVP180540

SUMMARY

Date Received
May 22, 2018

Two samples were received for tensile testing and one sample was received for chemical and microhardness testing.

Description
Standard Nickel

The results are on the following page(s).

Reference Date
June 2018



Reviewed by

Andrew Ensign, Manager
Chemistry Department

Reviewed by

Alex Montelione for Shawn Levey
Metallurgical Lab Supervisor



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TENSILE PROPERTIES (AVERAGE OF TWO REPLICATES)

	Tensile Strength (ksi)	Yield Strength (ksi)	Elongation (%)
Sample	162	113	2.2

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

CHEMISTRY

Element	Sample
Ni Alloy	99.86
Ni ¹	96.33
S ²	0.013

¹Determined by difference

²Determined combustion-infrared absorbance

Results in weight percent unless otherwise indicated

Method(s): CAP-017P (ICP-AES) and ASTM E 1019-11 (Comb./IGF)

MICROHARDNESS

	HV₁₀₀¹
Sample	489

¹Average of three readings

Method(s): ASTM E 384-16 (modified for edge spacing recommendations). Per ASTM E 384, 2.5 indent diameters are recommended between the center of the indent and the edge of the specimen. These indents are closer to the edge of the specimen, but no bulging or other evidence of inadequate support of the indenter force were observed.