



NEXALLOY R-357.0 – PRODUCT DATA SHEET

Nexalloy R-357.0 is a high purity Aluminum casting which is similar to alloy R-A356.0, but it has a larger amount of magnesium, which provides greater strength. Nexalloy R-357.0 is typically used in situations where high strength combined with high corrosion resistance and/or pressure tightness are required. Commonly used to weld parts including structural, machine, impellers, housings, pump, valve components, tools, frames, and brackets which are made of alloy 356.0, A356.0, A357.0, 3003, 6005, and 6061.

NEXAL WELDING PRODUCTS APPROVALS AND SPECIFICATIONS

AWS A5.10/A5.10M/ASME SFA 5.10 Classification R-357.0, AMS 4246, TUV, CE 0035 – CPR-C809.

Chemical Composition (weight %)

Aluminum	Remainder	Silicon	6.5 – 7.5
Manganese	0.03	Magnesium	0.45-0.60
Iron	0.15	Titanium	0.20 Max
Copper	0.05	Zinc	0.05 Max

Other Elements 0.05 Max each & Total 0.15 Max

Typical Properties

Melting Range	1035 – 1135 F 557 – 612 C
Density	.097 lbs.\cu in.
Post Anodize Color	Gray
UTS	46ksi – 317MPA
Elongation	H18 (2'') 2.59%

Rod Diameters Available

1/16" 3/32" 1/8" 5/32" 3/16"

Packaging Available

TIG Rods – 5LB/2.2KG, 10LB/4.5KG, 50LB/22.6KG

TIG Welding Procedures: ACHF

Base Thickness	Filler Wire Size	Tungsten	Amps	Consumption LB/100FT	Gas Cup Size	Argon(cfh)
1/16"	1/16"	1/16"	60-80	0.75	3/8"	20
3/32"	3/32"	3/32"	85-120	1.00	3/8"	20
1/8"	3/32"	3/32"	125-160	1.50	3/8"	20
3/16"	1/8"	1/8"	190-220	4.5-6.0	7/16"	25
1/4"	5/32"	5/32"	200-300	8-10	1/2"	30



Nexal Aluminum Inc.
www.nexalloy.com

5938 Ambler Drive Mississauga, ON L4W 2N3
An ISO 9001:2015 Certified Company

Phone: 1-905-629-8282
Fax: 1-905-629-8532

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Aluminum Manufacturing since 1973