

ARCAP® AP1D (UNS 79350)

Product Datasheet



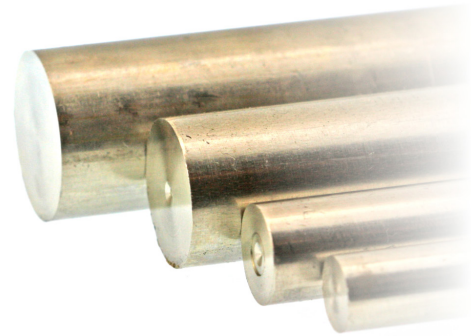
Nickel-Silver Alloy

Service. Quality. Value.

Free-Machining Alloy

ARCAP® AP1D is a nickel-silver based product, developed explicitly as a free-machining alloy.

The machinability of the material is one of the best of all corrosion-resistant alloys currently available. ARCAP® AP1D offers high free-cutting characteristics with an exceptional surface finish which can be lapped or polished with a diamond tool. The product is also burr-free after drilling. Tool sharpening is also significantly reduced due to the free machining capabilities of the alloy, although sharpening will be more frequent when compared to free machining carbon steels. ARCAP® AP1D corrosion resistance is very high. The product is also non-magnetic and temperature variations have almost no effect on resistivity.



Key Features

- Excellent corrosion resistance
- Superior free-cutting capabilities
- Highest corrosion resistant of free-cutting alloys
- Exceptional surface finish after machining
- Non-magnetic

Applications

- Optical fibre connectors
- Aerospace applications
- Connectors and sensors
- High-performance precision parts

Chemical Composition (weight %)

Cu	Ni	Mn	Pb	Sn	Fe	Zn	
59.0 - 63.0	23.0 - 26.0	0.50 max	0.8 - 1.10	0.60 max	0.25 max	Bal	

Mechanical Properties (round bar, typical)

Property	Value	Property	Value
Elastic modulus E	145 GPa at 20 °C	Hardness, Vickers HV	160 at 20 °C
Elongation A	2 % at 20 °C	Tensile strength Rm	550 - 750 MPa at 20 °C
Hardness, Brinell HB	160 at 20 °C	Yield strength YS	600 MPa at 20 °C
Hardness, Rockwell C HRC	3 at 20 °C		

UK Service Centres:

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Quality & Testing:



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