

NICKEL ALLOY 80A

Alloy 80A (alternatively known by Special Metals trade name Nimonic 80A) is a nickel chromium alloy similar to Alloy 75 but made precipitation hardenable by additions of aluminium and titanium. Alloy 80A has good corrosion and oxidation resistance and high tensile and creep rupture properties at temperatures up to 1500 deg F.

Specific Gravity													
8.19 g/cm3													
Typical Applications							Related Specifications						
Bolts Exhaust valves Gas turbine components Tube supports in nuclear steam generators							BS 3076 (NA20)						
							BS HR1						
							BS HR601						
							ASTM B637						
							UNS N07080						
							MSRR 7011						
							W.Nr 2.4952						
							W.Nr 2.4631						
DIN 17742													
Chemical Composition (Wt %)													
	Ni	Cr	Fe	C	Mn	Si	S	Ti	Al	Cu	B	Zr	Co
Min	Bal	18	–	–	–	–	–	1.8	1.0	–	–	–	–
Max	–	21	3.0	0.10	1.0	1.0	0.015	2.7	1.8	0.2	0.008	0.15	2.0
Typical Mechanical Properties													
0.2% Proof Stress						Tensile Strength		Elongation		Reduction of area		Hardness	
MPA						MPA		%		%		HV	
Min						Min		Min		Min		Min	

620	1000	20	12	300
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* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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General Enquiries

T: +44 (0) 1525 217 556 [\(tel:+4401525217556\)](tel:+4401525217556)

E: sales@dynamicmetalsltd.com [\(mailto:sales@dynamicmetalsltd.com\)](mailto:sales@dynamicmetalsltd.com)



UK Address:

Head Office

40 Eden Way
Chartwell Business Park
Leighton Buzzard
Bedfordshire
LU7 4FY

T: +44 (0)1525 217 556 [\(tel:+441525217556\)](tel:+441525217556)

Conversion Centre

Suite 2 Meadowhall Riverside
Meadowhall Road
Sheffield
South Yorkshire
S9 1BW

T: +44 (0)1143 030 320 [\(tel:+4401143030320\)](tel:+4401143030320)

Registered Office (only)

The Granary
Crowhill Farm Ravensden Road
Wilden
Bedfordshire
MK44 2QS

T: +44 (0)1525 217 556 [_\(tel:+441525217556\)](tel:+441525217556)



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