Hiduron 191 NES 835

Hiduron 191 NES 835 is a strong cupronickel alloy with elements of roughly 14.5% nickel and 4.5% manganese which is strengthened by additions of iron and aluminium. Hiduron 191 offers high strength along with higher anti-fouling characteristics and similar marine corrosion resistance to regular cupronickels, as well as higher toughness and tensile properties when compared to aluminium bronzes.

Hiduron 191 NES 835 is used for components that require high strength in a wide range of applications. This would include use for components such as fasteners, shafts, valve stems and flanges in subsea and surface naval vessels and offshore oil & gas platforms.

Hiduron 191 NES 835 Grades & Equivalents:

- *MLA-MPS-19A-BAR*
- *DEF STAN 02-835*
- *DGS 357*
- *DOD-C-24676*
- *EN 4223A*

Typical Chemical Analysis

C	Si	Mn	P	S	Cr	Ni	Mo
0.05	0.15	3.5-5.5	0.01	0.15	0.50	13.5-16.5	
W	**N**	**Cb/Nb**	**Ti**	**Co**	**Cu**	**Al**	**B**
					Balance	1.0-2.0	
V	**Fe**	**Mg**	**Ta**	**Ca**	**O**	**Bi**	**Se**
	0.70-1.20	0.05					
Sn	**Zn**	**Pb**	**Y**	**Cb/Nb + Ta**	**Ni + Co**	**H**	**PREN**
0.10	0.20	0.02					

Typical Mechanical Properties

Tensile Strength	725 N/mm² min
0.2% Proof Stress	430 N/mm² min
Elongation	18%
Reduction of Area	
Hardness	
Impacts	40 Izod min
Stress Rupture	
Other Remarks	

Product Forms Available:

- *Hexagon Head Bolts*
- *Hexagon Nuts*
- *Studbolts*
- *Socket Capscrews*
- *Socket Countersunk Screws*
- *Socket Setscrews*
- *& Many other special fasteners and bespoke machined parts*

Products can be produced to customer drawings or relevant British (BS), American (ASME, ANSI), European (DIN, UNI) or International Standards (ISO).

The size ranges M3 to M120 Metric and 3/16" to 4.75" Imperial can be supplied. Thread forms include UNC, UNS, UNF, BSW, BSF, Whitworth, Metric, Metric Fine.

LRQA CERTIFIED ISO 9001

Callywhite Lane
Dronfield
Derbyshire
S18 2XR

T: +44 01246 291111
www.westspecialfasteners.co.uk
sales@westspecialfasteners.co.uk