



ALUMINIUM CASTING ALLOY LM6M (STANDARD CASTING)

(BS 1490:1988 LM6)

LM6 has a high resistance to corrosion and excellent castability. It finds uses in numerous places due to these properties such as marine, manifolds, motor casings, cast doors, pumping applications. It is also especially suitable where castings need to be welded together. The ductility of LM6 castings means they can be easily rectified and modified into shape. It is equally adaptable for both sand and permanent mould casting and for die castings.

LM6 aluminium castings have excellent resistance to corrosion in marine environments, possess excellent ductility, but is of medium strength and is not heat treated. Its strength falls off rapidly at high temperatures. Its elastic limit is low and it is fairly difficult to machine.

Typical Mechanical Properties:	Sand Cast	Gravity Die Cast	Pressure Die Cast
Ultimate Tensile Strength	160 - 190 MPa	280MPa	190 - 230 MPa
Elongation (minimum)	5 %	2 -5 %	7 %
Typical Hardness	50 - 55 BHN	55 - 60 BHN	55 - 60 BHN
Compressive Strength	60 -70 MPa	120 MPa	70 - 80 MPa
Specific Gravity	2.65	2.65	2.65

Chemical Composition - Al-Si12

Element		%
Silicon	Si	10.00 - 13.00
Iron	Fe	0.60 maximum
Manganese	Mn	0.50 maximum
Titanium	Ti	0.20 maximum
Nickel	Ni	0.10 maximum
Copper	Cu	0.10 maximum
Zinc	Zn	0.10 maximum
Magnesium	Mg	0.10 maximum
Lead	Pb	0.10 maximum
Tin	Sn	0.05 maximum
Aluminium	Al	Balance
Total Impurities 0.15 maximum		

Comparative Specifications	
ISO Al-Si12	ISO Al-Si12Fe
EN AC 44 100	France: AS 13
Germany: G-AlSi12 (230)	Italy: UNI 4514
ASTM A413	Japan: AC 3A

To discuss your requirements, call a member of NovaCast's team on +44 (0) 1225 707466, or email sales@novacast.co.uk

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy options rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.

WWW.NOVACAST.CO.UK

A Single Source Solution for Precision Cast Components