6061 - ALUMINIUM ALLOY

Typical Analysis (Ave. values %)	Mg	Mn	Fe	Si	Zn	Cr	Ti	Cu	Al
	1.0	0.15	0.7	0.6	0.25	0.2	0.15	0.3	96.5

NEAREST STANDARD	BS	ISO
	EN AW-6061	Al Mg1SiCu

DESCRIPTION	Heat treatable alloy of medium strength, good corrosion resistance and weldability.

APPLICATIONS	Road and rail vehicle frames. Heavy duty structures.

MECHANICAL PROPERTIES	Temper	Tensile strength MPa	0.2% Proof stress MPa	Elong.A5 %	Elong.A50 %	Hardness Vickers
	O	125	55	18-27	26	30
	T4	180-235	110-140	14-21	16-21	70
	T6	**260-310**	**240-270**	**7-14**	**8-12**	**100**

FABRICATION PROPERTIES		
	Machinability	Good
	Extruding	Good
	General	Fair

PHYSICAL PROPERTIES		
	Density	2.70 (kg/dm^3)
	Melting point (Liquidus)	650^oC
	Melting point (Solidus, Eutectic)	580^oC
	Coefficient of thermal expansion	23.3-$\mu mm^{-1}K^{-1}$
	Thermal conductivity	166-W $m^{-1}K^{-1}$
	Specific heat capacity	895 JKg^{-1} K^{-1}
	Electrical resistivity	40 nΩ m
	Electrical conductivity	43% IACS