

Tensile properties of A356 unreinforced				
Test temperature	Condition	U.T.S (MPa)	Y.S. (MPa)	% Elong.
Room temperature	As-cast	255	170	14,2
	Extruded	297	192	19,3
150 C	As-cast	283	208	11,1
	Extruded	281	200	11,3
300 C	As-cast	188	163	26,2
	Extruded	208	171	29,2
Tensile properties of A356 reinforced with 10% wt SiCp				
Test temperature	Condition	U.T.S (MPa)	Y.S. (MPa)	% Elong.
Room temperature	As-cast	259	220	10,2
	Extruded	282	187	11,5
150 C	As-cast	227	130	11,8
	Extruded	281	153	18,1
300 C	As-cast	165	73	24,1
	Extruded	237	93	27,2
Tensile properties of A356 reinforced with 15% wt SiCp				
Test temperature	Condition	U.T.S (MPa)	Y.S. (MPa)	% Elong.
Room temperature	As-cast	245	155	8,3
	Extruded	267	164	11,5
150 C	As-cast	167	83	11,7
	Extruded	174	97	18,1
300 C	As-cast	183	63	25,1
	Extruded	213	84	28,8
Tensile properties of A356 reinforced with 20% wt SiCp				
Test temperature	Condition	U.T.S (MPa)	Y.S. (MPa)	% Elong.
Room temperature	As-cast	230	137	7,3
	Extruded	243	144	13,7
150 C	As-cast	145	66	12,9
	Extruded	151	83	15,6
300 C	As-cast	163	55	29,7
	Extruded	179	76	24,7

Table 3: The predicted tensile properties of A356 alloy matrix composites