

**HARDNESS READINGS FOR MAGNESIUM-SILICIDE ALLOY
EXTRUSIONS IN THE ARTIFICIALLY AGED CONDITION**

6063-T5			6063-T6			6061-T6 6005-T5					
HARDNESS NUMBER											
45	50	55	60	65	70	75	80	85	90	95	ROCKWELL "F"
54	58	63	67	71	75	79	83	88	93	98	ROCKWELL "E"
				10	20	30	40	50	60	73	ROCKWELL "B"
15	20	28	34	40	45	53	59	66	74	83	ROCKWELL "K"
50	52	56	60	65	70	76	82	92	107	127	VICKERS
48	52	54	58	62	68	74	82	90	102	120	BRINELL
7	8	9	10	11	12	13	14	15	16	17	WEBSTER
61	63	65	67	69	71	74	77	80	83	86	BARCOL

HARDNESS TESTER SETTINGS

- ROCKWELL "F" SCALE** *1/16" Steel Ball Penetrator - 60KG. Load*
- ROCKWELL "E" SCALE** *1/8" Steel Ball Penetrator - 100 KG. Load*
- ROCKWELL "B" SCALE** *1/16" Steel Ball Penetrator - 100 KG. Load*
- ROCKWELL "K" SCALE** *1/8" Steel Ball Penetrator - 150 KG. Load*
- VICKERS** *Diamond Penetrator - Various Loadings*
- BRINNEL** *10mm. Steel Ball Penetrator - 500 KG. Load*
- WEBSTER** *Model "B"*
- BARCOL IMPRESSOR**

ALLOY TYPE	MAJOR ALLOYING ELEMENTS (PERCENT)	DESCRIPTION
6005	Si .6 - .9 Mg .4 - .6	Similar to 6061 alloy. Used in structural applications. Good surface finish with high tensile strength.
6061	Mg .8 - 1.2 Si .4 - .8	Most versatile of heat treatable group. Will take considerable forming in T4. Good corrosion resistance. Used in transportation and structural applications. Grainy finish with high tensile strength.
6063	Si .2 - .6 Mg .45 - .9	Most popular extrusion alloy. Takes a good surface finish, is corrosion resistant, and can be heat treated for strength.