

## Common Permanent Mold Alloys

ALUMINUM ALLOYS							TYPICAL MECHANICAL PROPERTIES			
	Al	Si	Fe	Cu	Mg		Tensile	Yield	Elong.	Hardness
A319	89	6	1	3.5			34	19	2.5	85 BHN
A319T6							40	27	3	95 BHN
A355	93	5		1	0.5		27	15	3.5	75 BHN
A355T6							42	27	4	90 BHN
A356	92	7			0.35		26	18	5	
A356T6							33	24	6	70 BHN

ZINC-ALUMINUM ALLOYS							TYPICAL MECHANICAL PROPERTIES			
	Zn	Al	Cu				Tensile	Yield	Elong.	Hardness
ZA-12	88	11	1				40	30	1	92 BHN
ZA-27	71	27	2				58	53	3	110 BHN

YELLOW BRASS							TYPICAL MECHANICAL PROPERTIES			
	Cu	Sn	Pb	Zn			Tensile	Yield	Elong.	Hardness
C85200	72	1.5	3	23.5			30	14	15	40 Rb
C85500	61			39			54	23	34	53 Rb
C85800	62	1	1	36			48	28	9	61 Rb

MANGANESE BRONZE								TYPICAL MECHANICAL PROPERTIES			
	Cu	Al	Zn	Fe	Mn	Sn	Pb	Tensile	Yield	Elong.	Hardness
C86200	64	4	25	3	4			100	65	15	90 Rb
C86300	62	6	25	3	4			115	70	8	95 Rb
C86400	57	1	38	1	1	1	1	60	30	10	62 Rb
C86500	58	1	39	1	1			80	35	15	70 Rb

SILICON BRASS							TYPICAL MECHANICAL PROPERTIES			
	Cu	Zn	Si				Tensile	Yield	Elong.	Hardness
C87500	82	14	4				82	36	15	83 Rb
C87800	82	14	4				83	37	29	81 Rb

COPPER BISMUTH							TYPICAL MECHANICAL PROPERTIES			
	Cu	Sn	Bi				Tensile	Yield	Elong.	Hardness
C89320	89	6	5				40	20	30	70 BHN

ALUMINUM BRONZE							TYPICAL MECHANICAL PROPERTIES			
	Cu	Fe	Al	Ni	Mn		Tensile	Yield	Elong.	Hardness
C95200	88	3	9				93	35	38	78 Rb
C95300	89	1	10				82	34	20	80 Rb
C95400	85	4	11				105	46	11	88 Rb
C95500	81	4	11	4			113	62	6	99 Rb
C95700	75	3	8	2	12		129	75	1	180 BHN
C95800	82	4	9	4	1		96	52	17	88 Rb

Information contained in this publication should be used as a guideline for your information and verification. This information does not constitute a warranty, and we assume no legal obligation or responsibility with respect to or the use of information contained herein.