

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											
	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											
	Cu	Sn	Pb	Zn				Tensile	Yield	Eong.	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											
	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											
	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											
	Cu	Sn	Bi					Tensile	Yield	Elong.	Hardness
C89320	89	6	5					40	20	30	70 BHN

ALUMINUM BRONZE											
	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.



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