

## International Standards Comparison Chart - Zinc

Type of Metal	Grades	Tensile strength (MPa)	Elongation rate (%)	Hardness (HBS)	Friction coefficient	Thermal conductivity (C.S.C)	Density g/cm <sup>3</sup>
Bronze 663	ZQSn6-6-3	180-220	6	68	0.09	0.22	8.82
Bronze 10-1	ZQSn10-1	220-250	3-5	80-90	0.08	0.12	8.96
Bronze9-4	ZQA19-4	400-500	10	100	0.07	0.14	7.5
Zinc	ZA27	380-410	3-6	100	0.05	0.24	5.0
Zinc	ZA303	400-450	6-18	120	0.05	0.24	4.85
Zinc alloy (rare earth)	ZRH-8	420-450	4-15	80-130	0.05	0.24	4
Zinc-aluminum alloy	ZA43	380-450	5	80-120	0.07	0.24	3.89
Al based alloy	ALS8	200-220	3-12	70-90	0.004	0.35	2.8
Al based alloy (USA)	B850	190-230	6-8	60-90	0.004	0.419	2.79
Al based alloy (USA)	B852	210-230	5-9	50-95	0.004	0.42	2.81

### Mechanical Properties of Zinc Alloy

Alloy	Compressive yield strength (MPa)	Shear strength (MPa)	Fatigue strength (5X10 <sup>8</sup> ) MPa	Impact strength (J)
ZA	330-350	290-315	135-172.5	48-90
SJ	300-350	300-310	130-170	40-90

### Zinc Alloy Grades and Properties Chart

Types of Zinc	Tensile strength (MPa)	Elongation rate (%)	Hardness (HBS)	Density (g/cm <sup>3</sup> )
ZZnAl4	245	3-6	70-90	6.6
ZZnAl4-0.5	275	2-5	85-100	6.68
ZZnAl4-1	275	2-5	85-105	6.7
ZZnAl9-1.5	294	2	100-110	6.2
ZZnAl10-5	314	3	105-115	6.3
Y41	275	5	85-105	6.7
Y40	245	3	70-90	6.6

ZA8	365	2	90-100	6.3
ZA12	392	3	95-105	6.0
ZA27-2	420	6	100-120	4.85

**Export zinc alloy :**

USA : AG 40A AG 41A ZA8 ZA12 ZA27

Germany : GD-ZnAl4 GD-ZnAl4Cu1 GD-ZnAl4Cu3 GD-ZnAl6Cu1  
GK-ZnAl4Cu3 GK-ZnAl6Cu1

UK : BS 1004A BS1004B

Japan : ZDC2 ZDC1