GENERAL INFORMATION - BRASS FASTENERS

Brass is copper based alloy mixture that offers high electrical conductivity without becoming magnetized. It's reasonable corrosion resistance and acceptance of decorative and/or protective coatings makes it a popular choice is marine, optical, electro mechanical and plumbing industries. Grades CU2 and CU3 are not heat treated and have limited strength capabilities. When subject to tensile loads, stress corrosion resulting in cracks can occur. Mechanical properties of fasteners are similar to steel grade 4.6, however, impact strength and elongation are lower on grade CU2 due to cold working. When corrosion resistance and increased strength is the main objective stainless steel may be a better alternative. Grade markings are not required for grades CU2 and CU3 unless mutually agreed.

Designation and Composition

Grade:	**CU2**	**CU3**
Former #:	Ms 63	Ms 58
DIN #/ISO #:	17600/426	17600/426
USA unified #:	C24700	C38500
Chem % Copper:	62 - 64 Cu	57.2 - 59 Cu
Chem % Zinc:	36 - 38 Zn	41 - 42.8 Zn

Note: Excellent cold heading and forming - Good turning and machining - Difficult to hot form or machine - Can be hot formed - Difficult to cold form

Property Class - Tensile Strength

GRADE	NOMINAL THREAD		TENSILE STRENGTH	YIELD LIMIT
	above	up to and including	N/mm² min.	N/mm²
CU2	-	M6	440	340
	M6	M39	370	250
CU3	-	M6	440	340
	M6	M39	370	250

Tightening Torque

NOMINAL THREAD	**M2**	**M2.5**	**M3**	**M3.5**	**M4**	**M5**	**M6**	**M8**	**M10**
TIGHTENING TORQUE N/m	0.14	0.29	0.5	0.79	1.2	2.2	3.9	9.0	17.0

Rupture Torque - Minimum

GRADE CU2/GRADE CU3	**M1.6**	**M2**	**M2.5**	**M3**	**M3.5**	**M4**	**M5**
MINIMUM RUPTURE TORQUE Nm	0.10	0.21	0.45	0.8	1.3	1.9	3.8