

Alloy 2219

Chemical Composition Limits

ELEMENT									
	Cu	Mg	Mn	Si	Fe	Zn	Ti	Each	Total
	5.80	-	0.20	-	-	-	0.02		
	6.80	0.02	0.40	0.20	0.30	0.10	0.10	0.05	0.15

Typical Physical Properties

ALLOY AND TEMPER	AVERAGE COEFFICIENT OF THERMAL EXPANSION	MELTING RANGE APPROX.	TEMPER	THERMAL CONDUCTIVITY AT 77°F	ELECTRICAL CONDUCTIVITY AT 68°F		MODULUS OF ELASTICITY
	(68-212°F PER F)	°F		ENGLISH UNITS	EQUAL VOLUME	EQUAL WEIGHT	
2219		1010-1190	●	1190			
			T31, T37	- 780	28-	88	37
			T6, T81, T87	- 840	30-	94	35

Typical US Mechanical Properties

ALLOY AND TEMPER	TENSION				HARDNESS	SHEAR		FATIGUE		MODULUS OF ELASTICITY
	STRENGTH KSI		ELONGATION PERCENT IN 2 IN.		BRINNELL NUMBER	ULTIMATE SHEARING STRENGTH		ENDURANCE LIMIT		
	ULTIMATE	YIELD	1/16 IN. THICK SPECIMEN	1/2 IN. DIAMETER SPECIMEN	500 KG LOAD 10 MM BALL	KSI		KSI		
2219-O	25 -	11	18-		-	-				10.6
2219-T42	52 -	27	20-		-	-				10.6
2219-T31, T351	52 -	36	17-		-	-				10.6
2219-T37	57 -	46	11-		-	-				10.6
2219-T62	60	42	10-		-	-		15		10.6
2219-T81, T851	66	51	10-		-	-		15		10.6
2219-T87	69	57	10-		-	-		15		10.6

The following typical properties are not guaranteed, since in most cases they are averages for various sizes, product forms and methods of manufacture and may not be exactly representative of any particular product or size. These data are intended only as a basis for comparing alloys and tempers and should not be specified as engineering requirements or used for design purposes.

