Alloy 5086

Chemical Composition Limits

	ELEMENT									
WEIGHT %	Cu	Mg	Mn	Si	Fe	Zn	Ti	Cr	Each	Total
MINIMUM	–	3.50	0.20	–	–	–	–	0.05	–	–
MAXIMUM	0.10	4.50	0.70	0.40	0.50	0.25	0.15	0.25	0.05	0.15

Typical Physical Properties

	AVERAGE COEFFICIENT OF THERMAL EXPANSION	MELTING RANGE APPROX.	TEMPER	THERMAL CONDUCTIVITY AT 77ºF	ELECTRICAL CONDUCTIVITY AT 68ºF		ELECTRICAL RESISTIVITY AT 68ºF
	(68-212°F PER F)	°F		ENGLISH UNITS	EQUAL VOLUME	EQUAL WEIGHT	OHM-CIR. MIL/FOOT
ALLOY 5086	13.2	1085-1185	ALL	870	31	104	33

Typical US Mechanical Properties

ALLOY AND TEMPER	TENSION				HARDNESS	SHEAR	FATIGUE	MODULUS
	STRENGTH KSI		ELONGATION PERCENT IN 2 IN.		BRINNELL NUMBER	ULTIMATE SHEARING STRENGTH	ENDURANCE LIMIT	MODULUS OF ELASTICITY
	ULTIMATE	YIELD	1/16 IN. THICK SPECIMEN	1/2 IN. DIAMETER SPECIMEN	500 KG LOAD 10 MM BALL	KSI	KSI	KSI X 10^3
5086-O	38	17	22	–	–	23	–	10.3
5086-H32	42	30	12	–	–	–	–	10.3
5086-H116	42	30	12	–	–	–	–	10.3
5086-H34	47	37	10	–	–	27	–	10.3
5086-H112	39	19	14	–	–	–	–	10.3

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.

SUNSHINE METALS
AT THE CUTTING EDGE OF YOUR SUPPLY CHAIN

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