

HM Wire International, Inc.

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Alloy 405 - Penny Bronze

Applications: Typically used for meter clips, terminals, fuse clips, contact springs, relay springs, washers from rolled strip, rolled bar and sheet.

Nominal Composition:	Cu%	Sn%	Zn%			
	95.0%	1.0%	4.0%			
Composition Limits:	Cu%	Sn%	Zn%	Fe%	Pb%	
	94 -96%	0.7-1.3%	Balance	0.08% Max	0.05% Max	

Physical Properties

	English Units	Metric Units
Melting Point, Liquidus	1060°F	1940°C
Melting Point, Solidus	1025°F	1875°C
Density	0.319 lb/cu in @ 68°F	8.83 gm/cu cm
Poisson's Ratio	0.34	
Modulus of Elasticity	Hard: 110 GPa / Annealed: 125 GPa	

Mechanical Properties - Flat products, 1 mm thick

Temper	Tensile Strength ksi	@ 2% offset MPa	Elongation in 50 mm (2 in.), %	Hardness HRB	Shear Strength MPa
OS035	270	69	49	55 HRF	215
OS025	280	76	48	58 HRF	230
OS015	290	97	47	64 HRF	230
H01	325	250	30	46	240
H02	360	345	15	60	255
H03	400	385	12	67	260
H04	440	425	10	72	270
H06	475	460	7	76	280
H08	510	495	4	79	295
H10	540	525	3	82	310

*To be used as a guideline only.

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