ALMAG

DATA SHEET: C67300

HOT FORGING

HUG

C67300

Special anti friction and wear-resistant alloy.

Alloy with excellent hot stamping characteristics and sufficient machinability for chip removal. High strength alloy for bearing production. It has a high impact resistance which makes it excellent for manufacturing shaft bushings, sleeve bearings, thrust bearings, pump parts, transmission shafts, support pins, wear plates, gears and cams. Withstands high compression loads.

NAME OF ALLOY

ASTM: C67300 C66800 C67400 C67420 | **JIS:** C6730

CHEMICAL COMPOSITION ASTM

Cu	Pb	Sn	Fe	Ni	Al	Mn	Si	Zn	Altri elementi
min. 58.0 max 63.0 %	0.4 3.0 %	≤0.3 %	≤0.5 %	≤0.25 %	≤0.25 %	2.0 3.5 %	0.5 1.5 %	differenza	≤0.2 %

HEAT TREATMENTS

STRESS RELIEVING

Enables the redistribution of tensions induced by mechanical processing or cold plastic deformation reducing the risk of stress corrosion cracking.
The treatment consists of heating the items to 200°C - 250°C for 2 hours and cooling within the furnace.
The validation of the stress relieving treatment can be performed with the ISO 6957 test.

OTHER TREATMENTS

No other heat treatments are required.

TECHNOLOGICAL PROPERTIES

			low ▯▯▯▯▯▯▯ excellent
Structure	α+β	**Machinability**	■■■■■□□
Density	8.8 kg/cm^2	**Weldability**	■■■■□□□
Electrical conductivity	12% IACS	**Hot forming**	■■■■■□□
Coeff. of thermal expansion	20.1 10^{-6}/K	**Cold forming**	■■■□□□□
Thermal conductivity*	75 W/(m K)	**Corrosion resistance****	Not resistant
Specific heat	377 J/(kg K)		
Elasticity module	96 kN/mm^2		
Melting point	854-874 °C		

*at room temperature
**use care to ascertain compatibility with chemical substances

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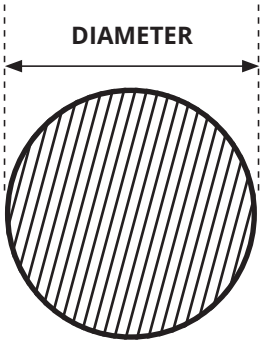

MECHANICAL PROPERTIES ASTM

Condition of material	Diameter in mm		Hardness HB	
	from	to (included)	min.	max
M	All		As a product	
H080	8	120	80	170

Any special hardness values must be defined when ordering

Rm N/mm²	$Rp_{0.2}$ N/mm²	A%
420-440*	310-330*	25-35*

* The values shown are not regulated and are only indicative.

DIMENSIONS, TOLERANCES, AND STRAIGHTNESS

Nominal diameter (mm)		TOLERANCES		Diameter mm		Length of bar	Tolerance mm
		Class A	Class B				
10	18	+/- 0.25	+/- 0.14	10	30	3.0 - 5.0	+/- 100
18	30	+/- 0.30	+/- 0.17	30	50	3.0 - 5.0	+/- 200
30	50	+/- 0.60	+/- 0.20	50	80	3.0	+/- 300
50	80	+/- 0.70	+/- 0.37				
80	120	+/- 2					

The standard “Extruded calibrated” product is produced in Class B up to and including Ø80 mm
Semi-finished products over Ø45 mm can be supplied in the “pressed” and “rolled” forms with Class A tolerance

Diameter (mm)		Deviation from straightness in mm	
		Every 400 mm	Every m of length L ≥ 1
10	60	1.5	3.0 x L

BAR FINISHING AND PACKAGING

Bar ends	finishing with saw cut and chamfer
Bar surface	not pickled
Packaging	1000 kg bundle – 3/5 metal straps different bundle packagings and quantities are possible upon request
Identification	adhesive label on bundle strap

COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =

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