

Chemical composition

Element	%	% standard
Cu	75.0	75.0
	77.0	77.0
Si	2.7	2.7
	3.5	3.5
Fe	0.3	0.3
	0.3	0.3
Ni	0.2	0.2
	0.2	0.2
Sn	0.2	0.3
	0.2	0.3
Total others	0.2	0.2
	0.2	0.2
P	0.02	0.02
	0.10	0.10
Pb	0.10	0.10
	0.10	0.10
Al	0.05	0.05
	0.05	0.05
Mn	0.05	0.05
	0.05	0.05
Others	0.02	
	0.02	
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW724R
ASTM (CDA):	C69300

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	8
Specific Heat	350
Thermal conductivity (W/mK)	40
Density (g/cm3)	8.3
Elasticity modulus	100
Structure	Multifasica
Thermal Stress relieving T (C°)	300 - 400
Melting T (C°).	885 - 950
Annealing T (C°).	500 - 700

Technological characteristics

Property	
Chip removal	★★★★★☆☆
Cold deformation	★★★★★☆☆
Dezincification resistant	★★★★★☆☆
Stress corrosion resistance	★★★★★☆☆
Welding	★★★★★☆☆
Hot stamping	★★★★★☆☆

Compatibility

Regulation	
4MS UBA LIST	Yes
DM 174:2004	No
AB 1953 California	Yes
NSF372	No
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	Yes
EUPL (EN) 2024/367	Yes

Round rod tolerances

Over (mm)	Up to (mm)	Tolerance (mm)	Reference EN12164:24
9 included	10	+0 / -0,06	A
10	18	+0 / -0,07	A
18	30	+0 / -0,08	A
30	50	+0 / -0,16	A
50	80	+0 / -0,19	A

Special tolerances (EN 12164 Class B) on request

Round rod tolerances

Over (mm)	Up to (mm)	Tolerance (mm)	Reference EN12165:24
10 included	18	+0 / -0,14	B
18	30	+0 / -0,17	B
30	50	+0 / -0,20	B
50	80	+0 / -0,37	B
80	120	±2.0	A
120	160	±2.5	A

Poligonal rod tolerances

Over (mm)	Up to (mm)	Tolerance (mm)	Reference EN12165:24
/	10	+0 / -0,09	Table 15
10	18	+0 / -0,11	Table 15
18	30	+0 / -0,13	Table 15
50	60	+0 / -0,19	Table 15
60	70	+0 / -0,19	/

Mechanical characteristics

Round rod dimension	Metallurgical state EN12164:2024 / EN12165:2024	Poligonal rod dimension	Metallurgical state EN12164:2024
9 Ø 160	M	10 Ch 70	M / M-S

Rods ends

Round rod dimension EN12164			Round rod dimension EN12165			Poligonal rod dimension EN12164		
Over	Up to	*	Over	Up to		Over	Up to	*
9 included	15 excluded	Point and chamfer as per drawing (1)	10 included	40	Rods ends without milled burrs	10 included	14 excluded	Point and chamfer as per drawing (3 and 4)
15 included	80	Point and chamfer as per drawing (2)	40	160	Rods ends without sawn burrs	14	70	Point and chamfer as per drawing (5 and 6)

* Products can be supplied with different ends on request

