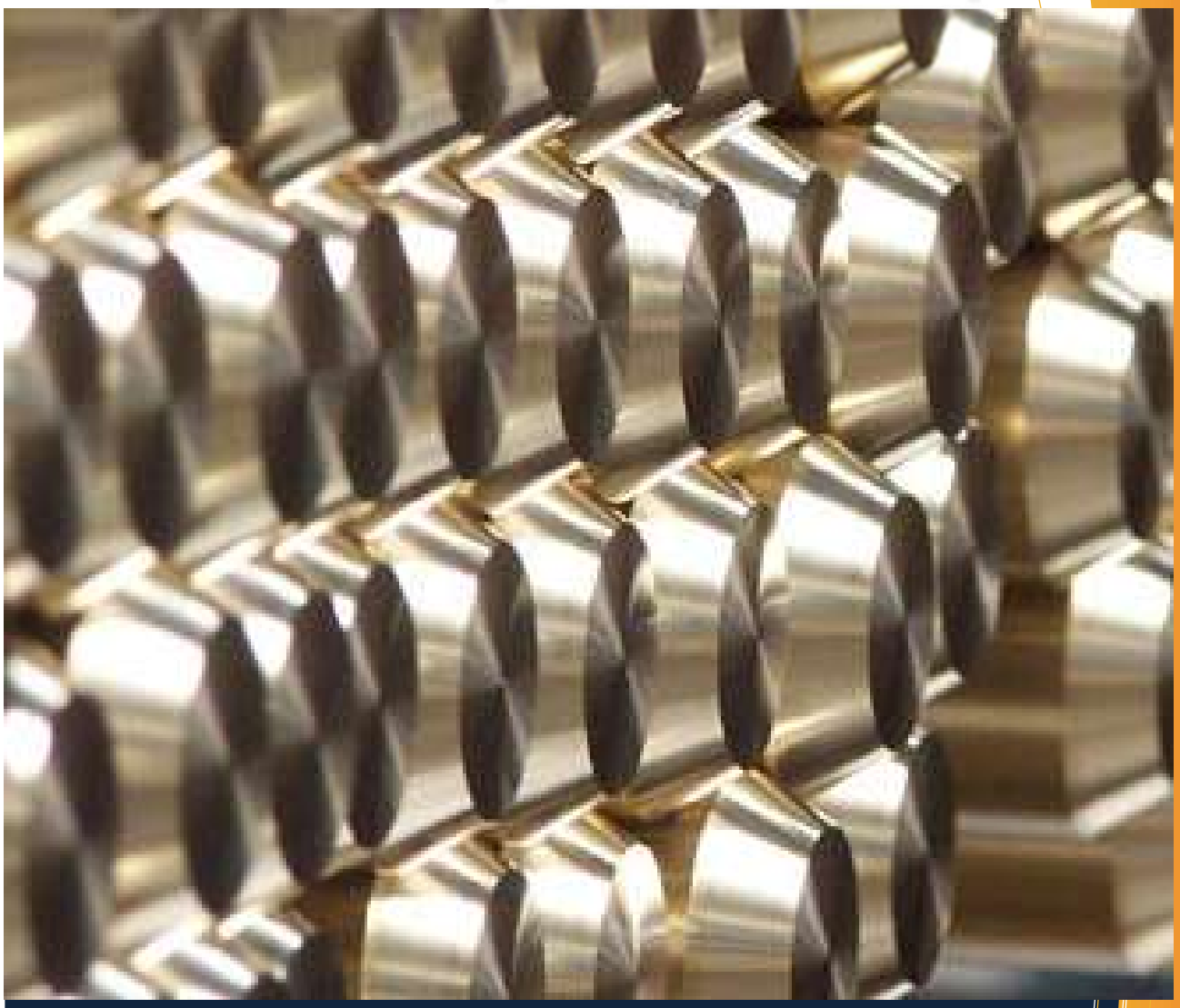


Technical Sheet

CZ727R

CW727R

Free machining

Via Vittorio Emanuele II, 39
25030 Roncadelle (Bs)
Tel. 030 27 89 511
Fax 030 27 89 690
www.almag.it

CZ727R TURNING

Low lead dezincification resistant tin alloy. It complies with the new lead release requirements imposed by the DWD revision. Lead values that must be guaranteed no later than 12 January 2036. This alloy is not included in the European product standards and will not be before 2027.
However, there are no limitations to its use. It is not present in the first version of the new EUPLs in which it will be included no earlier than 2027.

DENOMINATION ALLOY

EN*	CW727R CuZn35Sn1P

*name not yet official

CHEMICAL COMPOSITION

(waiting for specification)

Cu 63,5-65,0 %
Pb <0,1 %
Sn 0,5-1,0 %
P 0,05-0,15 %
Zn difference

TECHNOLOGICAL PROPERTIES*

Structure:	α
Density:	8,4 g/cm^3
Melting temperature:	890-920 °C
Lathe workability:	Good
Soldering:	Sufficient
Hot working:	Very good
Cold working:	Good
*Corrosion resistance:	<100 μm

(ISO 6509-1)

**The compatibility of this alloy with contact with chemicals must be verified through appropriate tests.*

HEAT TREATMENT

STRESS RELIEVING

It allows to redistribute in the part the tensions induced by the mechanical processing, reducing the risk of stress corrosion. The treatment consists in heating the parts to 150°C - 250°C for 2 hours and cooling in air.

RESIDUAL BETA PHASE SOLUBILIZATION

Heat treatment already carried out by Almag Spa on all the drawn product to eliminate the residual beta phase. This treatment allows the alloy to optimally resist the phenomenon of dezincification. Further heat treatments other than stress relieving are not recommended.

MECHANICAL PROPERTIES

Material condition	Diameters		Rm	$Rp_{0.2}$ N/mm^2	A %	* HBW	
	from	Up to	min.	min.	max.	min.	max.
M	All		Products				
R410	6 (10)	15 (20)	410	300	350	20	120	-
R380	16 (21)	80 (60)	380	270	320	25	115	-

*hardness value is determined at mid-radius

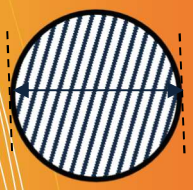
The conditions indicated do not appear in any European standard

DIMENSION, TOLLERANCES AND STRIGHTNESS

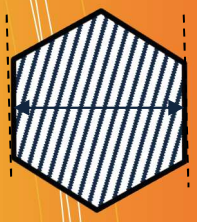
UNI EN 12164 ED.2016 (IN THE ABSENCE OF SPECIFIC REGULATION)

Round bar					Exagonal or square		
Diameter mm		TOLERANCES			KEY mm		TOLERANCES
from	Up to	Class A (h10)	Class B (h9)	Class C (h8)	from	Up to	
6	10	0 - 0,06	0 - 0,036	0 - 0,025	6	10	0 - 0.09
10	18	0 - 0,07	0 - 0,043		10	18	0 - 0.11
18	30	0 - 0,08	0 - 0,052		18	30	0 - 0.13
30	50	0 - 0.16			30	50	0 - 0.16
50	80	0 - 0.19			50	60	0 - 0.19

Diameter



Key



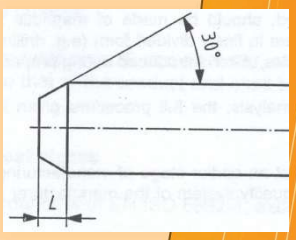
- The standard tolerance for round bar is **Class A**. Different tolerances must be agreed upon in advance when ordering
- Semi-finished products from Ø63 to Ø80 mm with tolerances are possible **Class A**

BAR, FINISHING AND PACKAGING

Diameters or Key mm		Deviation from straightness mm		
		Every 400 mm		Every m of lenght L ≥ 1
Barra sezione tonda				
10	50	0,8		2,0 x L
Exagonal and square section bar				
10	50	1,2		3,0 x L

Diameter mm		LENGHT bar mm	Tolerances mm
2	30	3000 o 4000	+/- 50
30	50	3000 o 4000	+/- 100
50	80	3000	+/- 100

Diameters or key mm		CHAMFER Lenght L mm		POINT Lenght L mm	
5	10	0,2	1,5	2	7
10	20	0,2	2	3	10
20	30	0,2	3	4	12



Unless otherwise specified by the buyer, the shape of the ends of products larger than 30 mm is at the discretion of the supplier.

Round bar ends: Finishing with chamfer and tip up to Ø42 mm included

Finish with chamfer and top cut Ø42 mm

Hex bar ends: Finishing with bevel and cut

Bar Surface:	Pickled
Packaging:	1000 kg bundle – 3/4 metal straps with cardboard in between. Different packaging and quantities per bundle are possible upon specific request.
Identification:	Adhesive label on the bundle strap
Stress relieving:	**The hexagonal bar was subjected to stress relieving heat treatment**

Via Vittorio Emanuele II, 39
25030 Roncadelle (Bs)
Tel. 030 27 89 511
Fax 030 27 89 690
www.almag.it