

Produced alloys table (click on the alloy to view the technical sheet)

	Cu	Ni	Sn	Pb	Fe	Al	Si	Mn	As	P
C46500 - GREEN	59.0 - 62.0		0.50 - 0.10	0 - 0.20	0 - 0.10				0.02 - 0.06	
C67300 - C673	58.0 - 63.0	0 - 0.25	0 - 0.3	0.4 - 3	0 - 0.5	0.24 - 0.25	0.5 - 1.5	2 - 3.5		
CF724R - 60Si	58.5 - 61.5		0 - 0.2		0 - 0.25	0 - 0.01	0.2 - 0.4			
CW507L - 65V	63.5 - 65.5	0 - 0.3	0 - 0.1	0 - 0.05	0 - 0.05	0 - 0.02				
CW508L - 63 BABY	62.0 - 64.0	0 - 0.3	0 - 0.1	0 - 0.008	0 - 0.1	0 - 0.05				
CW508L - 63V	62.0 - 64.0	0 - 0.3	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.05				
CW509L - OT60-LF	57.0 - 61.5	0 - 0.2	0 - 0.2	0 - 0.05	0 - 0.2	0 - 0.05				
CW509L - 60Pb01	59.0 - 61.5	0 - 0.2	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0.05				
CW509L - OT60-USA	59.0 - 61.5	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.05				
CW510L - OT57-USA	57.0 - 59.0	0 - 0.2	0 - 0.3	0 - 0.2	0 - 0.3	0 - 0.05				
CW510L - 57Pb01	57.0 - 59.0	0 - 0.2	0 - 0.3	0 - 0.1	0 - 0.3	0 - 0.05				
CW510L - 58 BABY	57.0 - 59.0	0 - 0.2	0 - 0.3	0 - 0.008	0 - 0.3	0 - 0.05				
CW719R - NAVAL	59.0 - 61.0	0 - 0.2	0.5 - 1	0 - 0.2	0 - 0.1					
CW720R - 58 Mn	57.0 - 59.0	0 - 0.6	0 - 0.3	1.0 - 2.0	0 - 0.3	0 - 0.2	0 - 0.1	1.5 - 3.0		
CW724R - ECOSI	75.0 - 77.0	0 - 0.2	0 - 0.3	0 - 0.10	0 - 0.3	0 - 0.05	2.7 - 3.5	0 - 0.05		0.02 - 0.10
LGCG13 - SPM	59.5 - 61.0	0 - 0.1	0 - 0.3	1.5 - 2.5	0 - 0.3	0 - 0.05				
CW511L - ADZPb01	61.5 - 63.5	0 - 0.10	0 - 0.1	0 - 0.10	0 - 0.1	0 - 0.05		0 - 0.1	0.02 - 0.10	
CW511L - ADZ-USA	61.5 - 63.5	0 - 0.3	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.05		0 - 0.1	0.02 - 0.1	
CW600N - 63Pb1	62.5 - 64.0	0 - 0.3	0 - 0.1	0.8 - 1.6	0 - 0.1	0 - 0.05				
CW601N - 63Pb2	62.0 - 63.5	0 - 0.3	0 - 0.1	1.6 - 2.5	0 - 0.1	0 - 0.05				
CW602N - ADZ	61.0 - 63.0	0 - 0.2	0 - 0.1	1.7 - 2.2	0 - 0.1	0 - 0.05		0 - 0.1	0.02 - 0.1	
CW603N	60.0 - 62.0	0 - 0.3	0 - 0.2	2.5 - 3.5	0 - 0.3	0 - 0.05				
CW605N	61.0 - 62.5	0 - 0.3	0 - 0.3	0.8 - 1.6	0 - 0.3	0 - 0.05				
CW606N	61.0 - 62.0	0 - 0.3	0 - 0.2	1.6 - 2.5	0 - 0.2	0 - 0.05				
CW607N - 38Pb1.5	60.0 - 61.0	0 - 0.3	0 - 0.2	0.8 - 1.6	0 - 0.2	0 - 0.05				
CW608N - SPM-EN	60.0 - 61.0	0 - 0.3	0 - 0.2	1.6 - 2.5	0 - 0.2	0 - 0.05				
CW610N - IS07	59.0 - 60.5	0 - 0.3	0 - 0.2	0.2 - 0.7	0 - 0.2	0 - 0.05				
CW611N - BTS1.5	59.0 - 60.0	0 - 0.3	0 - 0.3	0.8 - 1.6	0 - 0.3	0 - 0.05				
CW612N - Pb2-C377	59.0 - 60.0	0 - 0.3	0 - 0.3	1.6 - 2.5	0 - 0.3	0 - 0.05				
CW612N - PS22	59.0 - 60.0	0 - 0.1	0 - 0.3	1.6 - 2.2	0 - 0.3	0 - 0.05	0 - 0.03			
CW612N - EL	59.0 - 60.0	0 - 0.3	0 - 0.3	1.6 - 2.5	0 - 0.3	0 - 0.05				
CW613N - PS	59.0 - 60.0	0 - 0.1	0.2 - 0.3	1.6 - 2.2	0 - 0.3	0 - 0.05	0 - 0.03			
CW614N	57.0 - 59.0	0 - 0.3	0 - 0.3	2.2 - 3.5	0 - 0.3	0 - 0.05				
CW616N - 58Al	57.0 - 59.0	0 - 0.2	0 - 0.2	1.0 - 2.0	0 - 0.2	0.05 - 0.3				
CW617N	57.0 - 59.0	0 - 0.3	0 - 0.3	1.6 - 2.2	0 - 0.3	0 - 0.05				
CW625N	62.0 - 64.0	0 - 0.2	0 - 0.3	1.2 - 1.6	0 - 0.1	0.5 - 0.7		0 - 0.1	0.02 - 0.15	
CW626N	64.0 - 66.0	0 - 0.2	0 - 0.3	1.2 - 1.7	0 - 0.1	0.8 - 1		0 - 0.1	0.02 - 0.15	
CW627N - 58Pb1	57.0 - 59.0	0 - 0.3	0 - 0.3	0.8 - 1.6	0 - 0.3	0 - 0.05				
CW713R - MnAlSi	57.0 - 59.0	0 - 1.0	0 - 0.4	0.2 - 0.8	0 - 1.0	1.3 - 2.3	0.3 - 1.3	1.5 - 3.0		

C67300 - C673

High strength manganese bronze with good hot stamping characteristics and sufficient machinability for chip removal. Ideal for applications requiring a combination of exceptional wear characteristics and high impact resistance.

Chemical composition

Element	%	% standard
Cu	58.0	58.0
	63.0	63.0
Mn	2	2
	3.5	3.5
Pb	0.4	0.4
	3	3
Si	0.5	0.5
	1.5	1.5
Fe	0.5	0.5
	0.5	0.5
Total others	0.5	0.5
Sn	0.3	0.3
	0.3	0.3
Al	0.24	0.24
	0.25	0.25
Ni	0.25	0.25
	0.25	0.25
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
ASTM (CDA):	C67300

Physical characteristics

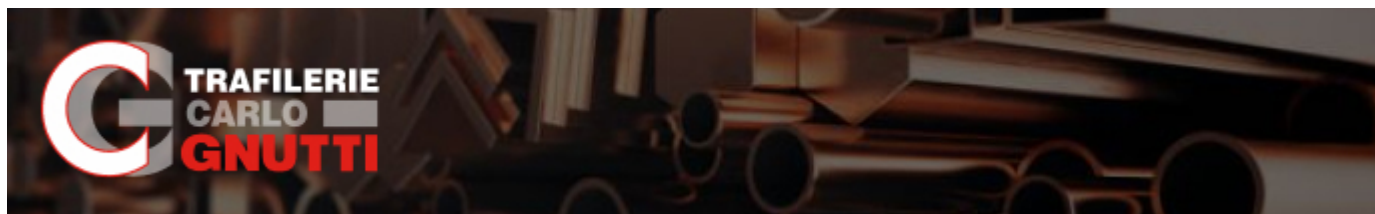
Characteristic	Value
Electrical conductivity (IACS %)	12
Specific Heat	377
Thermal conductivity (W/mK)	75
Density (g/cm3)	8.8
Elasticity modulus	96
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	850 - 880
Annealing T (C°).	400 - 700

Technological characteristics

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

Compatibility

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



CF724R - 60Si

alloy for welding

Chemical composition

Element	%	% standard
Cu	58.5	58.5
	61.5	61.5
Si	0.2	0.2
	0.4	0.4
Fe	0.25	0.25
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.01	0.01
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CF724R

Physical characteristics

Characteristic	Value
Density (g/cm3)	8.3
Structure	Bifasica + β

Technological characteristics

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

Compatibility

Regulation	
NSF372	No
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	Yes

CW507L - 65V

High copper binary alloy for cold deformation compliant with 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List

Chemical composition

Element	%	% standard
Cu	63.5	63.5
	65.5	65.5
Ni	0.3	0.3
Sn	0.1	0.1
Total others	0.1	0.1
Fe	0.05	0.05
Pb	0.05	0.05
Al	0.02	0.02
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW507L
BS:	CZ108
ASTM (CDA):	C27000
DIN:	2.0335

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	384
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.47
Elasticity modulus	112
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	905 - 930
Annealing T (C°).	420 - 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	Yes
AB 1953 California	Yes
NSF372	No
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	Yes

CW508L - 63 BABY

Binary alloy for cold deformation compliant with the 4MS Common Composition List and with DM174 of 06/04/04. The alloy has also been included in the new European Positive List. Variant with maximum lead of 80 ppm

Chemical composition

Element	%	% standard
Cu	62.0	62.0
	64.0	64.0
Ni	0.3	0.3
Fe	0.1	0.1
Sn	0.1	0.1
Total others	0.1	0.1
Al	0.05	0.05
Pb	0.008	0.1
Cd	0.0075	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW508L
BS:	CZ108
ASTM (CDA):	C27400
DIN:	2.0321

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	384
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.45
Elasticity modulus	112
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	900 - 920
Annealing T (C°).	420 - 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	Yes
AB 1953 California	Yes
NSF372	No
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	Yes

CW508L - 63V

Standard binary alloy for cold deformation compliant with the 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List

Chemical composition

Element	%	% standard
Cu	62.0	62.0
	64.0	64.0
Ni	0.3	0.3
Fe	0.1	0.1
Pb	0.1	0.1
Sn	0.1	0.1
Total others	0.1	0.1
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW508L
BS:	CZ108
ASTM (CDA):	C27400
DIN:	2.0321

Physical characteristics

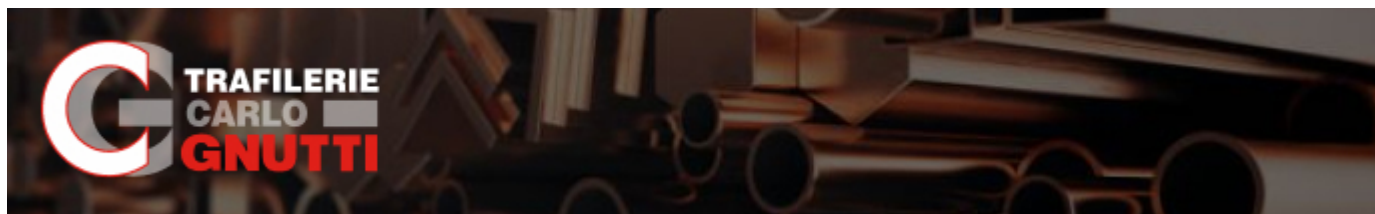
Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	384
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.45
Elasticity modulus	112
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	900 - 920
Annealing T (C°).	420 - 700

Technological characteristics

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

Compatibility

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



CW509L - OT60-LF

Binary alloy with good cold deformability compliant Binary alloy with good cold deformability compliant with the 4MS Common Composition List and with DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market. Variant with maximum lead equal to 0.05%

Chemical composition

Element	%	% standard
Cu	57.0 61.5	59.0 61.5
Fe	0.2	0.2
Ni	0.2	0.3
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Pb	0.05	0.2
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	28
Specific Heat	375
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.4
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	900 - 905
Annealing T (C°).	400 - 650

Technological characteristics

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

Other regulations

Regulation	Reference
EN:	CW509L
BS:	CZ109
ASTM (CDA):	C27450
DIN:	2.0360

Compatibility

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

CW509L - 60Pb01

Binary alloy with good cold deformability compliant with the 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market. Variant with maximum lead equal to 0.1%

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	61.5	61.5
Fe	0.2	0.2
Ni	0.2	0.3
Sn	0.2	0.2
Total others	0.2	0.2
Pb	0.1	0.2
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	28
Specific Heat	375
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.4
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	900 - 905
Annealing T (C°).	400 - 650

Technological characteristics

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

Other regulations

Regulation	Reference
EN:	CW509L
BS:	CZ109
ASTM (CDA):	C27450
DIN:	2.0360

Compatibility

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

CW509L - OT60-USA

Binary alloy with good cold deformability compliant with the 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	61.5	61.5
Fe	0.2	0.2
Ni	0.2	0.3
Pb	0.2	0.2
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	28
Specific Heat	375
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.4
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	900 - 905
Annealing T (C°).	400 - 650

Technological characteristics

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

Other regulations

Regulation	Reference
EN:	CW509L
BS:	CZ109
ASTM (CDA):	C27450
DIN:	2.0360

Compatibility

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

CW510L - OT57-USA

Binary alloy with excellent hot molding characteristics and sufficient workability for chip removal compliant with the 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market (UND. LAB. CLFD IN ACCORDANCE WITH NSF/ANSI 372 <MH64400>)

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Fe	0.3	0.3
Sn	0.3	0.3
Ni	0.2	0.3
Pb	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	30
Specific Heat	375
Thermal conductivity (W/mK)	139
Density (g/cm3)	8.39
Elasticity modulus	106
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	875 - 890
Annealing T (C°).	350 - 600

Technological characteristics

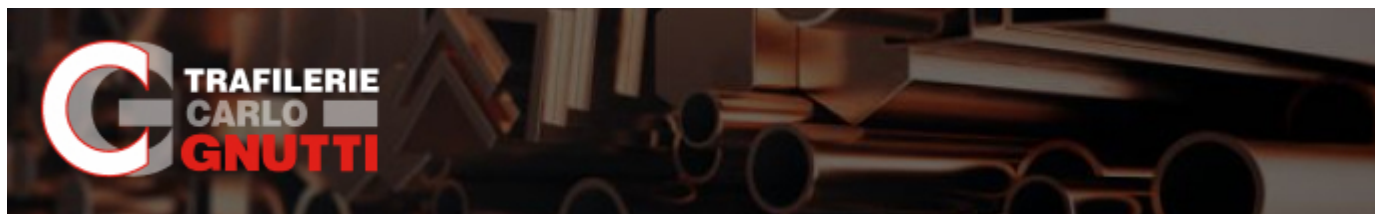
Property	
Chip removal	★★★★★☆☆
Cold deformation	★★★★★☆☆
Dezincification resistant	★★★★★☆☆
Stress corrosion resistance	★★★★★☆☆
Welding	★★★★★☆☆
Hot stamping	★★★★★☆☆

Other regulations

Regulation	Reference
EN:	CW510L
ASTM (CDA):	C28500

Compatibility

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



CW510L - 57Pb01

Binary alloy with excellent hot pressing characteristics and sufficient machinability for chip removal compliant with the 4MS Common Composition List and with DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market (UND. LAB. CLFD IN ACCORDANCE WITH NSF/ANSI 372 <MH64400>). Variant with maximum lead equal to 0.1%

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Fe	0.3	0.3
Sn	0.3	0.3
Ni	0.2	0.3
Total others	0.2	0.2
Pb	0.1	0.2
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	30
Specific Heat	375
Thermal conductivity (W/mK)	139
Density (g/cm3)	8.39
Elasticity modulus	106
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	875 - 890
Annealing T (C°).	350 - 600

Technological characteristics

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

Other regulations

Regulation	Reference
EN:	CW510L
ASTM (CDA):	C28500

Compatibility

Regulation	
4MS UBA LIST	Yes
DM 174:2004	Yes
AB 1953 California	Yes
NSF372	Yes
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	Yes

CW510L - 58 BABY

Binary alloy with excellent hot molding characteristics and sufficient machinability for chip removal compliant with the 4MS Common Composition List and DM174 of 06/04/04. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market (UND. LAB. CLFD IN ACCORDANCE WITH NSF/ANSI 372 <MH64400>). Variant with maximum lead of 80 ppm

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Fe	0.3	0.3
Sn	0.3	0.3
Ni	0.2	0.3
Total others	0.2	0.2
Al	0.05	0.05
Others	0.02	
Pb	0.008	0.2
Cd	0.0075	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	30
Specific Heat	375
Thermal conductivity (W/mK)	139
Density (g/cm3)	8.39
Elasticity modulus	106
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	875 - 890
Annealing T (C°).	350 - 600

Technological characteristics

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

Other regulations

Regulation	Reference
EN:	CW510L
ASTM (CDA):	C28500

Compatibility

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

CW511L - ADZPb01

Anti-dezincification binary alloy compliant with the 4MS Common Composition List and with DM174 of 06/04/04 and usable in contact with drinking water for the American market. The alloy was approved by UBA with the new limits of the DWD. Variant with maximum lead equal to 0.10%

Chemical composition

Element	%	% standard
Cu	61.5 63,5	61.5 63,5
Total others	0.2	0.2
As	0.02 0.10	0.02 0.15
Ni	0.10	0.3
Pb	0.10	0.2
Fe	0.1	0.1
Mn	0.1	0.1
Sn	0.1	0.1
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW511L
ASTM (CDA):	C27453

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	377
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.4
Elasticity modulus	108
Structure	Monofasica dopo ricottura
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	860 - 910
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW511L - ADZ- USA

Anti-dezincification binary alloy compliant with the 4MS Common Composition List and with DM174 of 06/04/04 and usable in contact with drinking water for the American market

Chemical composition

Element	%	% standard
Cu	61.5 63,5	61.5 63,5
Ni	0.3	0.3
Pb	0.2	0.2
Total others	0.2	0.2
As	0.02 0.1	0.02 0.15
Fe	0.1	0.1
Mn	0.1	0.1
Sn	0.1	0.1
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW511L
ASTM (CDA):	C27453

Physical characteristics

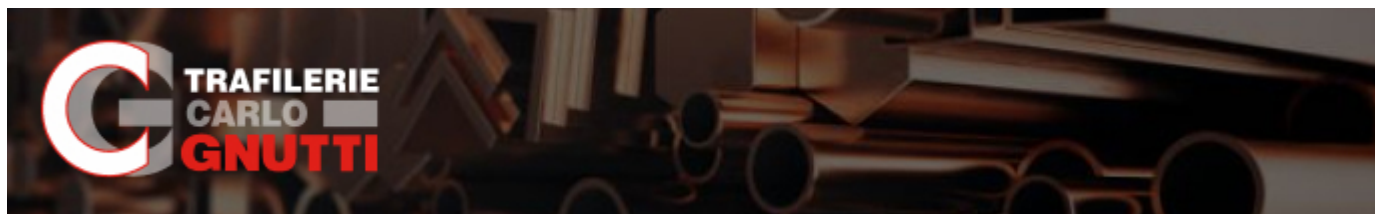
Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	377
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.4
Elasticity modulus	108
Structure	Monofasica dopo ricottura
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	860 - 910
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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



CW600N - 63Pb1

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	62.5	62.5
	64.0	64.0
Pb	0.8	0.8
	1.6	1.6
Ni	0.3	0.3
Fe	0.1	0.1
Sn	0.1	0.1
Total others	0.1	0.1
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW600N
BS:	CZ118
ASTM (CDA):	C34000
DIN:	2.0331

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	380
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.5
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 915
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW601N - 63Pb2

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	62.0	62.0
	63.5	63.5
Pb	1.6	1.6
	2.5	2.5
Ni	0.3	0.3
Fe	0.1	0.1
Sn	0.1	0.1
Total others	0.1	0.1
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW601N
BS:	CZ131
ASTM (CDA):	C34200
DIN:	2.0331

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	24
Specific Heat	380
Thermal conductivity (W/mK)	116
Density (g/cm3)	8.46
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 915
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW602N - ADZ

Standard anti-dezincification lead alloy

Chemical composition

Element	%	% standard
Cu	61.0	61.0
	63.0	63.0
Pb	1.7	1.7
	2.2	2.8
Ni	0.2	0.3
Total others	0.2	0.2
As	0.02	0.02
	0.1	0.15
Fe	0.1	0.1
Mn	0.1	0.1
Sn	0.1	0.1
Al	0.05	0.05
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW602N
BS:	CZ132
ASTM (CDA):	C35330

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	377
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.46
Elasticity modulus	100
Structure	Monofasica dopo ricottura
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	875 - 890
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW603N

Alloy with excellent machinability for chip removal with good cold workability

Chemical composition

Element	%	% standard
Cu	60.0	60.0
	62.0	62.0
Pb	2.5	2.5
	3.5	3.5
Fe	0.3	0.3
	0.3	0.3
Ni	0.3	0.3
	0.3	0.3
Sn	0.2	0.2
	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW603N
BS:	CZ124
ASTM (CDA):	C36000
DIN:	2.0375

Physical characteristics

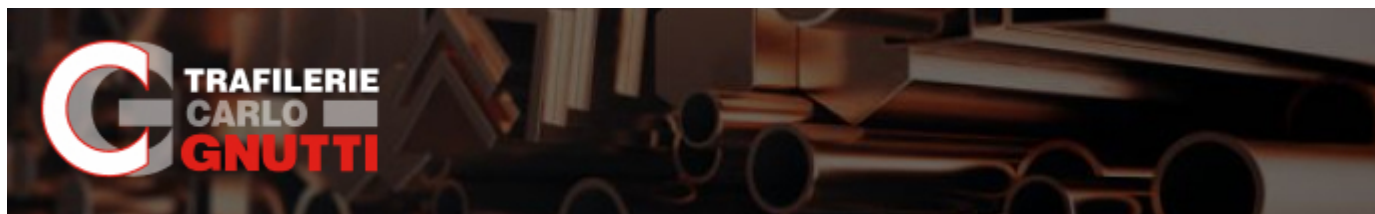
Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	380
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.50
Elasticity modulus	97
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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



CW605N

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	61.0	61.0
	62.5	62.5
Pb	0.8	0.8
	1.6	1.6
Fe	0.3	0.3
Ni	0.3	0.3
Sn	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW605N
ASTM (CDA):	C37000

Physical characteristics

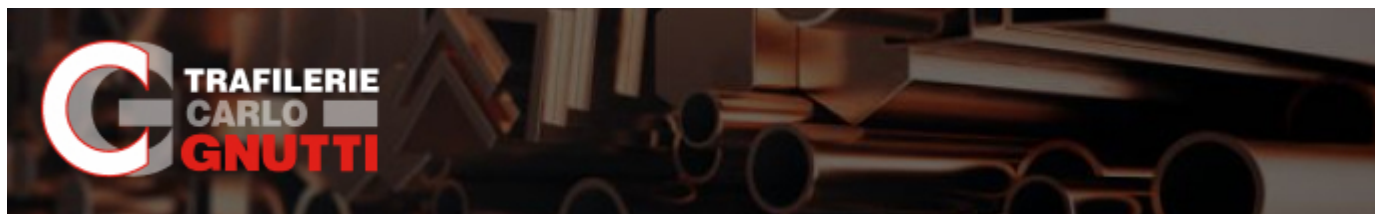
Characteristic	Value
Electrical conductivity (IACS %)	25
Specific Heat	377
Thermal conductivity (W/mK)	116
Density (g/cm3)	8.46
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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



CW606N

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	61.0	61.0
	62.0	62.0
Pb	1.6	1.6
	2.5	2.5
Ni	0.3	0.3
Fe	0.2	0.2
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW606N
BS:	CZ131
ASTM (CDA):	C35300

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	26
Specific Heat	377
Thermal conductivity (W/mK)	115
Density (g/cm3)	8.5
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 915
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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

CW607N - 38Pb1.5

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	60.0	60.0
	61.0	61.0
Pb	0.8	0.8
	1.6	1.6
Ni	0.3	0.3
Fe	0.2	0.2
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW607N
BS:	CZ129
ASTM (CDA):	C37000
DIN:	2.0371

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	24
Specific Heat	376
Thermal conductivity (W/mK)	110
Density (g/cm3)	8.4
Elasticity modulus	103
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 915
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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

CW608N - SPM- EN

Alloy for mechanical process with good cold deformation

Chemical composition

Element	%	% standard
Cu	60.0	60.0
	61.0	61.0
Pb	1.6	1.6
	2.5	2.5
Ni	0.3	0.3
	0.3	0.3
Fe	0.2	0.2
	0.2	0.2
Sn	0.2	0.2
	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW608N
BS:	CZ128
ASTM (CDA):	C37700

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.5
Elasticity modulus	100
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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

CW610N - IS07

Alloy for mechanical process with discrete cold deformation. Maximum lead equal to 0.7%

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.5	60.5
Pb	0.2	0.2
	0.7	0.8
Ni	0.3	0.3
Fe	0.2	0.2
Sn	0.2	0.2
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW610N
BS:	CZ137
ASTM (CDA):	C36500
DIN:	2.0372

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	28
Specific Heat	380
Thermal conductivity (W/mK)	123
Density (g/cm3)	8.4
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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

CW713R - MnAlSi

High strength complex alloy with good hot stamping characteristics and sufficient machinability for chip removal with excellent mechanical properties and wear resistance.

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Mn	1.5	1.5
	3.0	3.0
Al	1.3	1.3
	2.3	2.3
Si	0.3	0.3
	1.3	1.3
Fe	1.0	1.0
Ni	1.0	1.0
Pb	0.2	0.2
	0.8	0.8
Sn	0.4	0.4
Total others	0.3	0.3
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW713R
BS:	CZ135
DIN:	2.0550

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	13
Specific Heat	377
Thermal conductivity (W/mK)	81
Density (g/cm3)	8.1
Elasticity modulus	93
Structure	Bifasica + β
Thermal Stress relieving T (C°)	350 - 450
Melting T (C°).	875 - 910
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	No
DM 174:2004	Yes
AB 1953 California	No
NSF372	No
2000/53/CE ELV	Yes
2011/65/CE ROHS	Yes
1907/2006/CE REACH	No

CW719R - NAVAL

Low lead content tin alloy (Naval Brass) with excellent resistance to marine corrosion

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	61.0	61.0
Sn	0.5	0.5
	1	1
Ni	0.2	0.2
Pb	0.2	0.2
Total others	0.2	0.2
Fe	0.1	0.1
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW719R
BS:	CZ133
ASTM (CDA):	C46400

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	18
Specific Heat	380
Thermal conductivity (W/mK)	50
Density (g/cm3)	8.3
Elasticity modulus	93
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	425 - 600

Technological characteristics

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

Compatibility

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

CW720R - 58 Mn

Manganese alloy resistant to corrosion and high temperatures, with discrete machinability and good stamping characteristics

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Mn	1.5	1.5
	3.0	3.0
Pb	1.0	1.0
	2.0	2.0
Ni	0.6	0.6
Fe	0.3	0.3
Sn	0.3	0.3
Total others	0.3	0.3
Al	0.2	0.2
Si	0.1	0.1
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW720R
BS:	CZ136
DIN:	2.0580

Physical characteristics

Characteristic	Value
Specific Heat	380
Thermal conductivity (W/mK)	113
Density (g/cm3)	8.4
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW724R - ECOSI

Low lead copper/silicon alloy, anti-dezincification and with good resistance to stress corrosion cracking with excellent hot stamping characteristics and sufficient machinability for chip removal compliant with the 4MS Common Composition List. The alloy has also been included in the new European Positive List and can be used in contact with drinking water for the American market

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
Sn	0.3	0.3
	0.3	0.3
Ni	0.2	0.2
	0.2	0.2
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

LGCG13 - SPM

Non-standardized alloy for machining with good cold machinability similar to the CW608N alloy

Chemical composition

Element	%	% standard
Cu	59.5	59.5
	61.0	61.0
Pb	1.5	1.5
	2.5	2.5
Fe	0.3	0.3
	0.3	0.3
Sn	0.3	0.3
	0.3	0.3
Total others	0.2	0.2
Ni	0.1	0.1
	0.1	0.1
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.5
Elasticity modulus	100
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

Compatibility

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

LGCG13 - SPM

Non-standardized alloy for machining with good cold machinability similar to the CW608N alloy

CW611N - BTS1.5

Alloy for mechanical process with discrete cold deformation. Maximum lead equal to 1.5%

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.0	60.0
Pb	0.8	0.8
	1.6	1.6
Fe	0.3	0.3
	0.3	0.3
Ni	0.3	0.3
	0.3	0.3
Sn	0.3	0.3
	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	400 - 600

Technological characteristics

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

CW611N - BTS1.5

Alloy for mechanical process with discrete cold deformation. Maximum lead equal to 1.5%

Other regulations

Regulation	Reference
EN:	CW611N
BS:	CZ129
ASTM (CDA):	C37000

Property	
Welding	★★★★★☆☆
Hot stamping	★★★★★☆☆

Compatibility

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

CW612N - Pb2- C377

Alloy for machining with discrete cold machinability and good stamping characteristics compliant with the American alloy C37700

CW612N - Pb2- C377

Alloy for machining with discrete cold machinability and good stamping characteristics compliant with the American alloy C37700

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.0	60.0
Pb	1.6	1.6
	2.5	2.5
Fe	0.3	0.3
Ni	0.3	0.3
Sn	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW612N
BS:	CZ120
ASTM (CDA):	C37700
DIN:	2.0380

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 895
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW612N - PS22

Alloy for machining with discrete cold machinability and good stamping characteristics compliant with the 4MS Common Composition List and DM174 of 06/04/04

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.0	60.0
Pb	1.6	1.6
	2.2	2.5
Fe	0.3	0.3
Sn	0.3	0.3
Total others	0.2	0.2
Ni	0.1	0.3
Al	0.05	0.05
Si	0.03	
Others	0.02	
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW612N
BS:	CZ120
ASTM (CDA):	C37700
DIN:	2.0380

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 895
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW612N - EL

Alloy for mechanical process with discrete cold deformation

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.0	60.0
Pb	1.6	1.6
	2.5	2.5
Fe	0.3	0.3
	0.3	0.3
Ni	0.3	0.3
	0.3	0.3
Sn	0.3	0.3
	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW612N
BS:	CZ120
ASTM (CDA):	C37700
DIN:	2.0380

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 895
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW613N - PS

Alloy for machining with discrete cold machinability and good stamping characteristics compliant with the 4MS Common Composition List and DM174 of 06/04/04

Chemical composition

Element	%	% standard
Cu	59.0	59.0
	60.0	60.0
Pb	1.6	1.6
	2.2	2.5
Fe	0.3	0.4
	0.3	0.5
Sn	0.2	0.2
	0.3	0.5
Total others	0.2	0.2
Ni	0.1	0.3
	0.05	0.05
Si	0.03	
	0.02	
Others	0.01	0.01
	Resto	Resto
Zn		

Other regulations

Regulation	Reference
EN:	CW613N

Physical characteristics

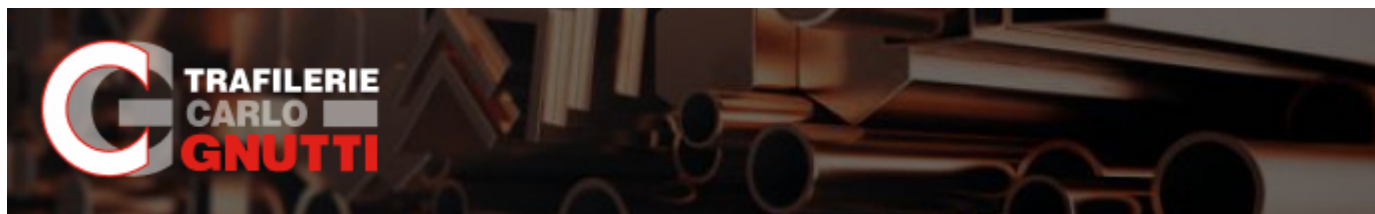
Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 895
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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



CW614N

Standard lead alloy for mechanical processing

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Pb	2.2	2.2
	3.5	3.5
Fe	0.3	0.3
	0.3	0.3
Ni	0.3	0.3
	0.3	0.3
Sn	0.3	0.3
	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW614N
BS:	CZ121
ASTM (CDA):	C38500
DIN:	2.0401

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	28
Specific Heat	380
Thermal conductivity (W/mK)	123
Density (g/cm3)	8.47
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 900
Annealing T (C°).	350 - 600

Technological characteristics

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

Compatibility

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

CW616N - 58Al

Lead alloy for hot stamping with excellent surface qualities and good machinability

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Pb	1.0	1.0
	2.0	2.0
Al	0.05	0.05
	0.3	0.3
Fe	0.2	0.2
Ni	0.2	0.2
Sn	0.2	0.2
Total others	0.2	0.2
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW616N

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	113
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β

Technological characteristics

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

Compatibility

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

CW617N

Standard lead alloy for hot stamping with good machinability

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Pb	1.6	1.6
	2.2	2.2
Fe	0.3	0.3
Ni	0.3	0.3
Sn	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW617N
BS:	CZ122
ASTM (CDA):	C37700
DIN:	2.0402

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 900
Annealing T (C°).	350 - 600

Technological characteristics

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

Compatibility

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

CW625N

Anti-dezincification lead alloy compliant with the 4MS
Common Composition List and with DM174 of 06/04/04

Chemical composition

Element	%	% standard
Cu	62.0	62.0
	64.0	64.0
Pb	1.2	1.2
	1.6	1.6
Al	0.5	0.5
	0.7	0.7
Sn	0.3	0.3
	0.3	0.3
Ni	0.2	0.2
	0.2	0.2
Total others	0.2	0.2
As	0.02	0.02
	0.15	0.15
Fe	0.1	0.1
	0.1	0.1
Mn	0.1	0.1
	0.1	0.1
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW625N

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	23
Specific Heat	380
Thermal conductivity (W/mK)	93
Density (g/cm3)	8.5
Elasticity modulus	100
Structure	Monofasica dopo ricottura
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	860 - 910
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW626N

Anti-dezincification lead alloy compliant with the 4MS
Common Composition List and with DM174 of 06/04/04

Chemical composition

Element	%	% standard
Cu	64.0	64.0
	66.0	66.0
Pb	1.2	1.2
	1.7	1.7
Al	0.8	0.8
	1	1
Sn	0.3	0.3
Ni	0.2	0.2
Total others	0.2	0.2
As	0.02	0.02
	0.15	0.15
Fe	0.1	0.1
Mn	0.1	0.1
Cd	0.01	0.01
Zn	Resto	Resto

Other regulations

Regulation	Reference
EN:	CW626N

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	24
Specific Heat	380
Thermal conductivity (W/mK)	96
Density (g/cm3)	8.5
Elasticity modulus	96
Structure	Monofasica dopo ricottura
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	860 - 910
Annealing T (C°).	400 - 650

Technological characteristics

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

Compatibility

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

CW627N - 58Pb1

Low lead alloy for hot stamping with good machinability

Chemical composition

Element	%	% standard
Cu	57.0	57.0
	59.0	59.0
Pb	0.8	0.8
	1.6	1.6
Fe	0.3	0.3
	0.3	0.3
Ni	0.3	0.3
	0.3	0.3
Sn	0.3	0.3
	0.3	0.3
Total others	0.2	0.2
Al	0.05	0.05
	0.05	0.05
Cd	0.01	0.01
	0.01	0.01
Zn	Resto	Resto
	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	27
Specific Heat	380
Thermal conductivity (W/mK)	120
Density (g/cm3)	8.40
Elasticity modulus	105
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	885 - 900
Annealing T (C°).	350 - 600

Technological characteristics

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

Compatibility

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

CW627N - 58Pb1

Low lead alloy for hot stamping with good machinability

C46500 - GREEN

Naval Brass Arsenical Low Lead

Chemical composition

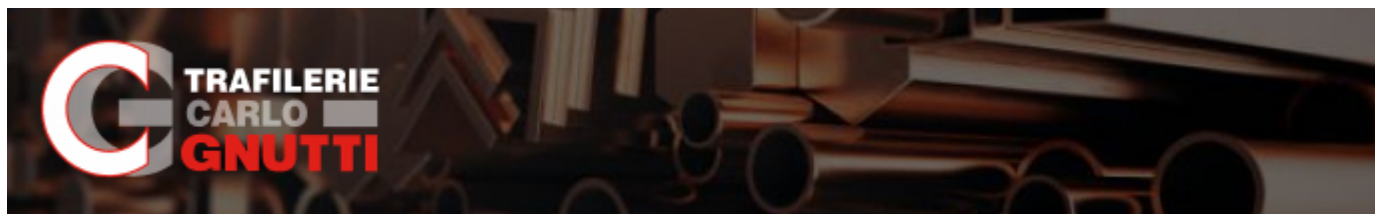
Element	%	% standard
Cu	59.0	59.0
	62.0	62.0
Total others	0.4	0.4
Pb	0.20	0.20
Fe	0.10	0.10
Sn	0.50	0.50
	0.10	0.10
As	0.02	0.02
	0.06	0.06
Cd	0.01	0.01
Zn	Resto	Resto

Physical characteristics

Characteristic	Value
Electrical conductivity (IACS %)	18
Specific Heat	380
Thermal conductivity (W/mK)	50
Density (g/cm3)	8.41
Elasticity modulus	93
Structure	Bifasica + β
Thermal Stress relieving T (C°)	250 - 350
Melting T (C°).	880 - 900
Annealing T (C°).	425 - 600

Technological characteristics

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



C46500 - GREEN

Naval Brass Arsenical Low Lead

Other regulations

Regulation	Reference
ASTM (CDA):	C46500

Property	
Welding	★★★★★☆☆
Hot stamping	★★★★★☆☆

Compatibility

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