

# Tolerances

## COPPER SHEETS FOR ELECTRICAL APPLICATIONS

Nominal thickness		Tolerance on thickness for nominal widths					
		from 10, up to and including 200		greater than 200, up to and inc. 350	greater than 350, up to and inc. 700	greater than 700, up to and inc. 1000	greater than 1000, up to and inc. 1250
greater than	up to and including	normal	special				
0,05 <sup>a</sup>	0,1	± 10% <sup>b</sup>	–	–	–	–	–
0,1	0,2	± 0,010	± 0,007	± 0,015	–	–	–
0,2	0,3	± 0,015	± 0,010	± 0,020	± 0,03	± 0,04	–
0,3	0,4	± 0,018	± 0,012	± 0,022	± 0,04	± 0,05	± 0,07
0,4	0,5	± 0,020	± 0,015	± 0,025	± 0,05	± 0,06	± 0,08
0,5	0,8	± 0,025	± 0,018	± 0,030	± 0,06	± 0,07	± 0,09
0,8	1,2	± 0,030	± 0,022	± 0,040	± 0,07	± 0,09	± 0,10
1,2	1,8	± 0,035	± 0,028	± 0,06	± 0,08	± 0,10	± 0,11
1,8	2,5	± 0,045	± 0,035	± 0,07	± 0,09	± 0,11	± 0,13
2,5	3,2	± 0,055	± 0,040	± 0,08	± 0,10	± 0,13	± 0,17
3,2	4,0	–	–	± 0,10	± 0,12	± 0,15	± 0,20
4,0	5,0	–	–	± 0,12	± 0,14	± 0,17	± 0,23
5,0	6,0	–	–	± 0,14	± 0,16	± 0,20	± 0,26
6,0	7,0	–	–	± 0,16	± 0,19	± 0,23	± 0,29

Nominal thickness		Tolerance on thickness for nominal widths					
		from 10, up to and including 200		greater than 200, up to and inc. 350	greater than 350, up to and inc. 700	greater than 700, up to and inc. 1000	greater than 1000, up to and inc. 1250
greater than	up to and including	normal	special				
7,0	8,0	–	–	± 0,18	± 0,22	± 0,26	± 0,32
8,0	9,0	–	–	± 0,20	± 0,25	± 0,29	± 0,35
9,0	10,0	–	–	± 0,22	± 0,28	± 0,32	± 0,38
10,0	25,0	–	–	± 0,25	± 0,30	± 0,35	± 0,45
<sup>a</sup> Includes value 0.05							
<sup>b</sup> ± 10% del Nominal thickness							

## COPPER SHEETS FOR GENERAL PURPOSES

### TOLERANCES ON THICKNESS OF HOT-ROLLED PRODUCTS

Nominal thickness		Tolerances on thickness, for nominal widths of						Greater than 1500
		Up to and including 700		Greater than 700, up to and inc. 1000		Greater than 1000, up to and inc. 1500		
greater than	up to and including	1)	2)	1)	2)	1)	2)	By agreement
–	2,5	By agreement		By agreement		By agreement		
2,5	5,0	± 0,25	± 0,30	± 0,30	± 0,35	± 0,35	± 0,45	
5,0	7,5	± 0,35	± 0,45	± 0,40	± 0,50	± 0,45	± 0,55	
7,5	10	± 0,45	± 0,60	± 0,50	± 0,65	± 0,55	± 0,75	
10	15	± 0,75	± 0,95	± 0,80	± 1,00	± 0,90	± 1,10	
15	25	± 0,95	± 1,20	± 1,05	± 1,30	± 1,30	± 1,60	
25	50	± 1,30	± 1,60	± 1,40	± 1,75	± 1,50	± 1,90	
50	–	± 1,50	± 1,90	± 1,65	± 2,05	± 1,80	± 2,20	

1) For all materials, except CuAl8Fe3 (CW303G), CuNi10Fe1Mn (CW352H), CuNi30Mn1Fe (CW354H) y CuZn20Al2As (CW702R)  
2) For all alloys CuAl8Fe3 (CW303G), CuNi10Fe1Mn (CW352H), CuNi30Mn1Fe (CW354H) y CuZn20Al2As (CW702R)

## TOLERANCES ON THICKNESS OF COLD ROLLED PRODUCTS

Nominal thickness		Thickness tolerances for nominal widths of <sup>a</sup>			
greater than	up to and including	Up to and including 350	greater than 350 Up to and including 700	Greater than 700, up to and inc. 1000	Greater than 1000, up to and inc. 1250
0.1 <sup>b</sup>	0,2	± 0,018	–	–	–
0,2	0,3	± 0,022	± 0,03	± 0,04	–

Nominal thickness		Thickness tolerances for nominal widths of <sup>a</sup>			
greater than	up to and including	Up to and including 350	greater than 350 Up to and including 700	Greater than 700, up to and inc. 1000	Greater than 1000, up to and inc. 1250
0,3	0,4	± 0,025	± 0,04	± 0,05	± 0,07
0,4	0,5	± 0,03	± 0,05	± 0,06	± 0,08
0,5	0,8	± 0,04	± 0,06	± 0,07	± 0,09
0,8	1,2	± 0,05	± 0,07	± 0,09	± 0,10
1,2	1,8	± 0,06	± 0,08	± 0,10	± 0,11
1,8	2,5	± 0,07	± 0,09	± 0,11	± 0,13
2,5	3,2	± 0,08	± 0,10	± 0,13	± 0,17
3,2	4,0	± 0,10	± 0,12	± 0,15	± 0,20
4,0	5,0	± 0,12	± 0,14	± 0,17	± 0,23
5,0	6,0	± 0,14	± 0,16	± 0,20	± 0,26
6,0	7,0	± 0,16	± 0,19	± 0,23	± 0,29
7,0	8,0	± 0,18	± 0,22	± 0,26	± 0,32
8,0	9,0	± 0,20	± 0,25	± 0,29	± 0,35
9,0	10,0	± 0,22	± 0,28	± 0,32	± 0,38

<sup>a</sup> For all alloys CuAl8Fe3 (CW303G), CuNi10Fe1Mn (CW352H), CuNi30Mn1Fe (CW354H) y CuZn20Al2As (CW702R), tolerances on thickness must be multiplied by 1.25 and the result rounded up to 0.01mm

<sup>b</sup> includes 0.1.

NOTE – For thicknesses greater than 10 mm, tolerances are those indicated in Norm EN 1653.