

Schlösser Möller Kul Håndverksveien 13C 1405 Langhus Norway	Your order B117531	
	Our reference 132993	Packing slip / Date PS537265 30.10.2020

Item	Product, Grade and Size	Cupori Item no.	Amount	Shop floor order
3	Cupori 210 Ref copper tube EN 12735-1 Cu-DHP R290 12,7 (1/2")X0,89 MM X 5 M Nitrogenfylda	P314262	779,330 kg	132993.3

According to: EN 12735-1

### Mechanical testing

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Rm (N/mm <sup>2</sup> )	466,000	466,000	290,000	
Rp 0.2 (N/mm <sup>2</sup> )	437,000	437,000		
Rp 0.5 (N/mm <sup>2</sup> )	421,000	421,000		
Rp 1.0 (N/mm <sup>2</sup> )	466,000	466,000		
Elongation (%)	9,000	9,000	3,000	
Grainsize (mm)				

### Method of control of dimensions

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Average WT		0,860	0,810	0,870
Average OD		12,700	12,655	12,745
Roundness		0,020		

Chemical composition %  
Cu-DHP/CW024A  
Cu min 99,90  
P 0,03

EDDY CURRENT TESTED: 100%

Electrical conductivity at 20 C % IACS(mass) annealed

We hereby certify, that the material described above complies with the order

These products have been produced under a certified quality system  
ISO 9001: 2015 / DNV Certificate No. 80561-2010-AQ-FIN-FINAS

Teemu Pihl

This certificate has been established electronically and is valid without signature.

Cupori Oy

Tel. +358 2 511 4111 Fax  
Domicile: Business ID: 2639859-8 VAT: FI26398598

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Item	Product, Grade and Size	Cupori Item no.	Amount	Shop floor order
4	Cupori 210 Ref copper tube EN 12735-1 Cu-DHP R290 15,88 (5/8")X1,02 MM X 5 M Nitrogenfylda	P314263	798,190 kg	132993.4

According to: EN 12735-1

**Mechanical testing**

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Rm (N/mm <sup>2</sup> )	464,000	464,000	290,000	
Rp 0.2 (N/mm <sup>2</sup> )	434,000	434,000		
Rp 0.5 (N/mm <sup>2</sup> )	463,000	463,000		
Rp 1.0 (N/mm <sup>2</sup> )	463,000	463,000		
Elongation (%)	9,000	9,000	3,000	
Grainsize (mm)				

**Method of control of dimensions**

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Average WT		0,980	0,920	1,010
Average OD		15,870	15,835	15,925
Roundness		0,040		

Chemical composition %  
 Cu-DHP/CW024A  
 Cu min 99,90  
 P 0,03

EDDY CURRENT TESTED: 100%

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Item	Product, Grade and Size	Cupori Item no.	Amount	Shop floor order
5	Cupori 210 Ref copper tube EN 12735-1 Cu-DHP R290 19,05 (3/4")X1,07 MM X 5 M Nitrogenfylda	P314264	534,900 kg	132993.5

According to: EN 12735-1

**Mechanical testing**

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Rm (N/mm <sup>2</sup> )	462,000	462,000	290,000	
Rp 0.2 (N/mm <sup>2</sup> )	429,000	429,000		
Rp 0.5 (N/mm <sup>2</sup> )	461,000	461,000		
Rp 1.0 (N/mm <sup>2</sup> )	462,000	462,000		
Elongation (%)	7,000	7,000	3,000	
Grainsize (mm)				

**Method of control of dimensions**

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Average WT	0,980	0,980	0,910	0,990
Average OD	19,050	19,080	18,995	19,105
Roundness	0,030	0,040		

Chemical composition %  
 Cu-DHP/CW024A  
 Cu min 99,90  
 P 0,03

EDDY CURRENT TESTED: 100%

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Item	Product, Grade and Size	Cupori Item no.	Amount	Shop floor order
6	Cupori 210 Ref copper tube EN 12735-1 Cu-DHP R290 22,23 (7/8")X1,14 X 5 M Nitrogenfylda	P314265	506,400 kg	132993.6

According to: EN 12735-1

### Mechanical testing

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Rm (N/mm <sup>2</sup> )	466,000	466,000	290,000	
Rp 0.2 (N/mm <sup>2</sup> )	435,000	435,000		
Rp 0.5 (N/mm <sup>2</sup> )	419,000	419,000		
Rp 1.0 (N/mm <sup>2</sup> )	466,000	466,000		
Elongation (%)	6,000	6,000	3,000	
Grainsize (mm)				

### Method of control of dimensions

Parameter tested	Measured		Specified/Reference(R)	
	Min.	Max.	Min.	Max.
Average WT		1,070	0,970	1,070
Average OD		22,230	22,175	22,285
Roundness		0,110		

Chemical composition %  
Cu-DHP/CW024A  
Cu min 99,90  
P 0,03

EDDY CURRENT TESTED: 100%

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