

# Cu-OFE

Designation	EN / Cu-OFE	EN / CW009A	UNS / C10100
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This very pure copper alloy is oxygen-free and finds its main use in brazing and in applications for high vacuum. This alloy is immune towards hydrogen embrittlement. It also does not contain elements that evaporate under high vacuum. Thin copper foil can be made with this material.

## COMPOSITION OF MATERIAL

- Cu:  $\geq 99,99\%$
- O:  $\leq 0,0005\%$

## PHYSICAL PROPERTIES

• Density	8,93 g/cm <sup>3</sup>
• Melting point	1083 °C
• Electrical conductivity	min. 58 m/Ω mm <sup>2</sup> (at 20 °C R200)
• Electrical resistivity	max. 0,017241 Ω mm <sup>2</sup> /m (at 20 °C R200)
• Temperature coefficient of electrical resistance	3,81·10 <sup>-3</sup> /K (at 0 to 150 °C R200)
• Thermal conductivity	394 W/K m (at 20 °C)
• Thermal capacity	0,386 J/g K (at 20 °C)
• Coefficient of thermal expansion (linear)	17,7·10 <sup>-6</sup> /K (at 20 to 300 °C)
• Modulus of elasticity (tensile)	110 GPa (at 20 °C R200)

MANUFACTURING PROGRAM	THICKNESS	WIDTH
Rolls, spools, sheets	0,006 - 0,4 mm	0,6 - 660 mm

*not all combinations of thickness and width are available  
or different dimensions please contact our technical service*

TEMPER ACCORDING TO DIN EN 13599			TYPICAL VALUES (information only)
	Tensile strength Rm in MPa	Yield strength Rp <sub>0,2</sub> in MPa	Elongation in % L <sub>0</sub> = 100 mm
R200	200 - 250	≤ 100	> 15
R220	220 - 260	≤ 140	> 15
R240	240 - 300	≥ 180	< 35
R290	290 - 360	≥ 250	< 20
R360	≥ 360	≥ 320	< 5

*The values in the table are valid only for foils with thickness > 0,1 mm.*

For further information please visit our website: <https://www.schlenk.com>  
You will find further information at: <https://copperalliance.eu>

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