

**Goodfellow**

innovation, delivered



Alloy



Foil

## OFHC Copper Foil 0.1mm thick half hard

### OFHC

Product Code: CU21-FL-000160

When dealing with foils at 0.05mm or thinner, we offer 2 options: Light Tight tested foils (denoted as LT in our catalogue) or standard untested foils (denoted as Sizes in our catalogue). When the foil thickness surpasses 0.05mm, there's no requirement for a light-tight test, as these foils become naturally denser and provide a more effective barrier against light.

Very limited stock available.

Thickness: 0.1mm

Temper: Half Hard

Size: 10mm x 10mm - 25mm x 25mm

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## Electrical Properties

Electrical resistivity ( $\mu\text{Ohmcm}$ ): 1.7Temperature coefficient ( $\text{K}^{-1}$ ): 0.00380 - 0.00390

## Mechanical Properties

Elongation at break (%): 10.0 -45.0

Hardness - Vickers ( $\text{kgf mm}^{-2}$ ): 50 - 90Izod impact strength ( $\text{J m}^{-1}$ ): 55.0 - - 75.0

Modulus of elasticity (GPa): 120.0 - 135.0

Tensile modulus (GPa): 200.00 - 300.00

Tensile strength (MPa): 200.00 - 320.00

## Physical Properties

Density (  $\text{g cm}^{-3}$  ): **8.900**

## Thermal Properties

Coefficient of thermal expansion (  $\times 10^{-6} \text{ K}^{-1}$  ): **16.800 @25-100°C**

Maximum use temperature in air ( C ): **750 - 950**

Melting point ( C ): **1083.00**

Thermal conductivity (  $\text{W m}^{-1} \text{ K}^{-1}$  ): **395.00 @23°C**

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## Related Product Data

### Form

#### Foil

Thin sheets of pure metal and metal alloys. Due to their fragile nature, some foils are coated on one side with an acrylic or polyester support. Where foils are supported they are indicated in the detailed item description.



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### Tolerances

#### Coil

Coil Width:  $<100\text{mm}$   $\pm 1\text{mm}$

Coil Width:  $\geq 100\text{mm}$   $+2\% / -1\%$

Length:  $<100\text{mm}$   $\pm 1\text{mm}$

Length:  $\geq 100\text{mm}$   $+2\% / -1\%$

#### Disc

Diameter:  $<100\text{mm}$   $\pm 0.5\text{mm}$

Diameter:  $\geq 100\text{mm}$   $+2\% / -1\%$

## Sizes

Length 1: <100mm  $\pm 1\text{mm}$

Length 1:  $\geq 100\text{mm}$  +2% / -1%

Length 2: <100mm  $\pm 1\text{mm}$

Length 2:  $\geq 100\text{mm}$  +2% / -1%

## Sizes (Light Tight)

Length 1: <100mm  $\pm 1\text{mm}$

Length 1:  $\geq 100\text{mm}$  +2% / -1%

Length 2: <100mm  $\pm 1\text{mm}$

Length 2:  $\geq 100\text{mm}$  +2% / -1%

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## Type

### Alloy

Alloys are mixtures of a metal with other elements, the precise combination being governed by the required properties. Alloys are generally considered to be metallic in nature i.e. they have good thermal and electrical conductivities). Alloys can be manufactured by various routes, the most widely used being to melt the constituents together and to cool the resultant mixture to form a single or multi-phase solid.

