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Certificate No: LR23408347WA-03

Issue Date: 26/01/2024 Expiry Date: 26/01/2027

## **Copper Alloy Tubes**

Manufacturer Wieland-Werke AG

**Address** Graf-Arco-Straße 36, 89079 Ulm, Germany

**Type** Copper Alloy Tubes

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes and grades to which this approval applies are given on subsequent pages of this certificate.

This certificate is issued to the named manufacturer, and is valid until the expiry date specified. Lloyd's Register is to be notified of any change that may affect the validity of this certificate, and reserves the right to cancel or withdraw this certificate.



71 Fenchurch Street, London, EC3M 4BS, United Kingdom

## **Clive Arnold**

Metallurgy Team - Lead Specialist to Lloyd's Register EMEA A member of the Lloyd's Register group

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## **Copper Alloy Tubes**

Copper alloy tubesCopper alloy tubesGradesMaximum DiameterUnitsAnnealed-Copper alloy tubes219.00mm

## **Additional Remarks**

Grades include Copper-phosphorus deoxidised non-arsenical, aluminium brass, 90/10 CuNiFe and 70/30 CuNiFe acc LR Rules for Materials Chap 9 Sect 3.

National standard grades ASME SB-359 - C44 300 and DIN EN 12452 - CuZn20Al2As may also be accepted for specifically approved LR project applications.

The scope of approval is for finned and unfinned tubes. Fins are formed by cold rolling, with a maximum 5mm wall thickness accepted for approved applications.

Tubes of diameter 79 mm to 219 mm, wall thickness 5 mm, are unfinned and are semi-finished product for subsequent processing.

Eddy current testing used in lieu of hydraulic testing.



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