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Certificate No: LR24123360WA Issue Date: 29/11/2024 Expiry Date: 28/11/2027

Copper Alloy Castings For Valves, Liners, Bushes And Fittings

Manufacturer Raguse & Voss Metallgießerei GmbH

Address Grauwallring 24, Bremerhaven, 27580, Germany

Type Short Freezing Range Alloys

Long Freezing Range Alloys

Scope of Approval Copper Alloy Castings for Valves, Liners, Bushes and Fittings

Long freezing range alloys: Phosphor bronze, Gunmetal, Leaded gunmetal

and Leaded bronze, details as per Appendix.

Grades for Approved applications only: CuSn10PbP, CuSn10P, CuSn10,

CuSn7Pb3Zn3 and CuSn9Pb15

Short freezing range alloys: Copper 30% nickel and Aluminium bronze,

details as per Appendix.

Grades for Approved applications only: CuNi30Cr, CuNi30Nb, CuAl9Ni,

CuAl9Ni7 and CuAl11Ni

The certification of these grades is only permissible when the application in a project has been specifically approved by a Lloyd's Register plan

appraisal.

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.



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

Li Xu

Metallurgy Team - Lead Specialist to Lloyd's Register EMEA

A member of the Lloyd's Register group



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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.



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Copper Alloy Castings for Valves, Liners, Bushes and Fittings	Phosphor bronze	Grades	Maximum Weight	Units
-	-	CuSn10PbP	0.60	Tonnes
-	-	CuSn10P	0.60	Tonnes
-	-	CuSn11P	0.60	Tonnes
-	-	CuSn12	0.60	Tonnes
-	-	CuSn10	0.60	Tonnes
Copper Alloy Castings for Valves, Liners, Bushes and Fittings	Gunmetal	Grades	Maximum Weight	Units
-	-	CuSn10Zn2	0.60	Tonnes
Copper Alloy Castings for Valves, Liners, Bushes and Fittings	Leaded gunmetal	Grades	Maximum Weight	Units
Castings for Valves, Liners, Bushes and	Leaded gunmetal	Grades CuSn5Pb5Zn5	Maximum Weight 0.60	Units Tonnes
Castings for Valves, Liners, Bushes and	Leaded gunmetal		-	
Castings for Valves, Liners, Bushes and	Leaded gunmetal Leaded bronze	CuSn5Pb5Zn5	0.60	Tonnes
Castings for Valves, Liners, Bushes and Fittings	-	CuSn5Pb5Zn5 CuSn7Pb3Zn3	0.60 0.60	Tonnes Tonnes
Castings for Valves, Liners, Bushes and Fittings	- - Leaded bronze	CuSn5Pb5Zn5 CuSn7Pb3Zn3 Grades	0.60 0.60 Maximum Weight	Tonnes Tonnes Units
Castings for Valves, Liners, Bushes and Fittings	- - Leaded bronze	CuSn5Pb5Zn5 CuSn7Pb3Zn3 Grades CuSn10Pb10	0.60 0.60 Maximum Weight 0.60	Tonnes Tonnes Units Tonnes



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Copper Alloy Castings for Valves, Liners, Bushes and Fittings	Copper 30% nickel	Grades	Maximum Weight	Units
-	-	CuNi30Cr	0.20	Tonnes
-	-	CuNi30Nb	0.20	Tonnes
Copper Alloy Castings for Valves, Liners, Bushes and Fittings	Aluminium bronze	Grades	Maximum Weight	Units
-	-	CuAl10Fe5Ni5	0.20	Tonnes
-	-	CuAl9Ni	0.20	Tonnes
-	-	CuAl9Ni7	0.20	Tonnes
-	-	CuAl11Ni	0.20	Tonnes



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