

COPPER ALLOY**Lead Bronze: CC494K****DSM 2.4.2****Lead Bronze: CC494K:**

A copper-based alloy the major alloying elements being Tin & Lead.

Definition:

These additions create an alloy with excellent machining properties, good wear properties combined with medium strength and a good corrosion resistance. It will withstand some weaker acids in contaminated waters.

Features:

Suitable for bearings using low to moderate loads and applications with little lubrication, or possible miss-alignment, for short periods. This alloy is suitable for mild steel shafts with low loadings or hard shafts with moderate to low loads and speeds.

ASM (DEK) Applications:

- Pulleys
- Bearings: (See above)

These values are representative and should not be considered as definitive. For critical applications, refer to material data-sheet.

TYPICAL MECHANICAL PROPERTIES @25°C	
DENSITY:	9000 Kg/m ³
YOUNGS MODULUS:	68 GPa
POISSONS RATIO:	0.28
YIELD STRENGTH	132 MPa
TENSILE STRENGTH	250 Mpa

Issue	01	02	03	04	05	06	07	08	09
DCR	7135	30040	44721						



COPPER ALLOY**Lead Bronze: CC494K****DSM 2.4.2****Key Features:**

METHOD	RESULT
Machining	V Good
Cold Working_ Ambient	Not Recommended
Hot Forming	Not Recommended
Brazing & soldering	Good & Good
Welding – (Mig & others)	Not Recommended
Welding – Resistance (spot)	Not Recommended
Corrosion Resistance (uncoated)	Atmosphere: Excellent Marine: Excellent

Supplied Forms:

These sizes are given in good faith and should not be considered
as definitive

- **Round:** 10mm – 300mm
- **Round_hollow:** various
- **Square:** 22mm – 123mm
- **Hexagon:** 17mm – 76mm
- **Rectangular:** 12x32 – 100x300

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CHEMICAL COMPOSITION					
Copper (Cu)	Balance	Nickel (Ni)	2.0% max	Iron (Fe)	0.25 % max
Lead. (Pb)	8.0 / 10.0 %	Zinc (Zn)	2.0% max	Phosph. (P)	0.10 % max
Tin (Sn)	4.0 / 6.0 %				

- **Tin (Sn):** Increases corrosion & tensile strength
- **Lead (Pb):** Acts as a lubricant. & chip breaker.

CURRENT INTERNATIONAL SPECIFICATION COMPARISON	
BRITISH: EN 1982	CC494K
GERMAN: DIN	----
EUROPEAN: EN	CuSn5Pb9
AMERICAN: UNS	C93500
JAPANESE GRADE	----
CHINESE GRADE	----

REPLACES

BS 1400	DESCRIPTION
LB 4	Copper Alloy Ingots & Castings

Alternatives:

Alternative materials are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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