

'Lead Free' Free Cutting Phosphor Bronze

International patent pending

Lead-free cutting phosphor bronze with complete compliance with RoHS / ELV directive
It is complete lead-free bronze that is superior in plastic workability while maintaining mechanical properties and cutting properties of conventional free cutting phosphor bronze.
Excellent machinability was realized by adding elements that have no influence on the environment, while leaving the main component of phosphor bronze intact.

Alloy Composition

Alloy No.	Chemical Composition (wt %)						
	Cu	Sn	P	S	Ni	Pb	Cu+Sn+S + Ni + P
KFX41	—	2.0-6.0	0.03-0.35	0.1-0.5	0.6-3.0	0.1 max.	99.5 min.

wt%

Product Features

Alloy No.	Temper	Size [mm]	Tensile Strength [N/mm ²]	Elongation [%]
KFX41	H	1 - 6 max.	440 min.	—
		6 - 13 max.	410 min.	10 min.
		13 - 25 max.	375 min.	12 min.

Physical Property

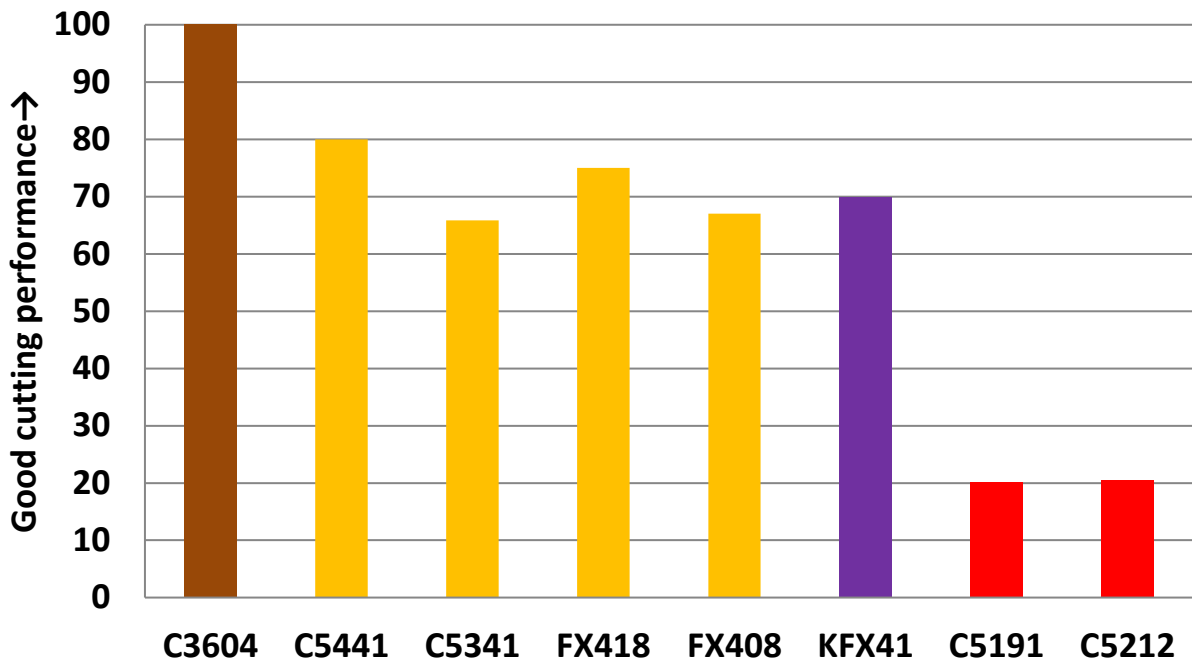
Alloy No.	Specific Weight	Electric Conductivity %IACS
KFX41	8.84	17-19

Manufacture

FUJII MANUFACTURING CO.,LTD.

Material Design

KURIMOTO, LTD.



'Lead Free' Phosphor
Bronze [KFX41]



Free Cutting Phosphor
Bronze [JIS H3270 C5341]



※Conditions $\phi 17$

Rotational speed 450rpm、Feed pitch 0.75mm、Depth cut 0.5mm

for inquiries or information

無鉛快削磷青銅

[國際專利申請中]

可完全對應RoHS/EVL 規範 無鉛快削磷青銅

是具有快削磷青銅的機械特性與切削性, 及良好的塑性加工性的無鉛快削磷青銅。
本產品與磷青銅的主成分相同, 藉由添加不影響環境的元素, 實現優良的切削性能。
*與既有的快削磷青銅有區分的必要。

合金組成

合金編號	化學成分(重量%)						Cu+Sn+S + Ni + P
	Cu	Sn	P	S	Ni	Pb	
KFX41	—	2.0-6.0	0.03-0.35	0.1-0.5	0.6-3.0	0.1>	99.5以上

wt%

製品特性

合金編號	質別	尺寸範圍 [mm]	抗拉強度 [N/mm ²]	伸長率 [%]
KFX41	H	1 以上 6 以下	440 以上	—
		6 を超え 13 以下	410 以上	10 以上
		13 を超え 25 以下	375 以上	12 以上

物理特性

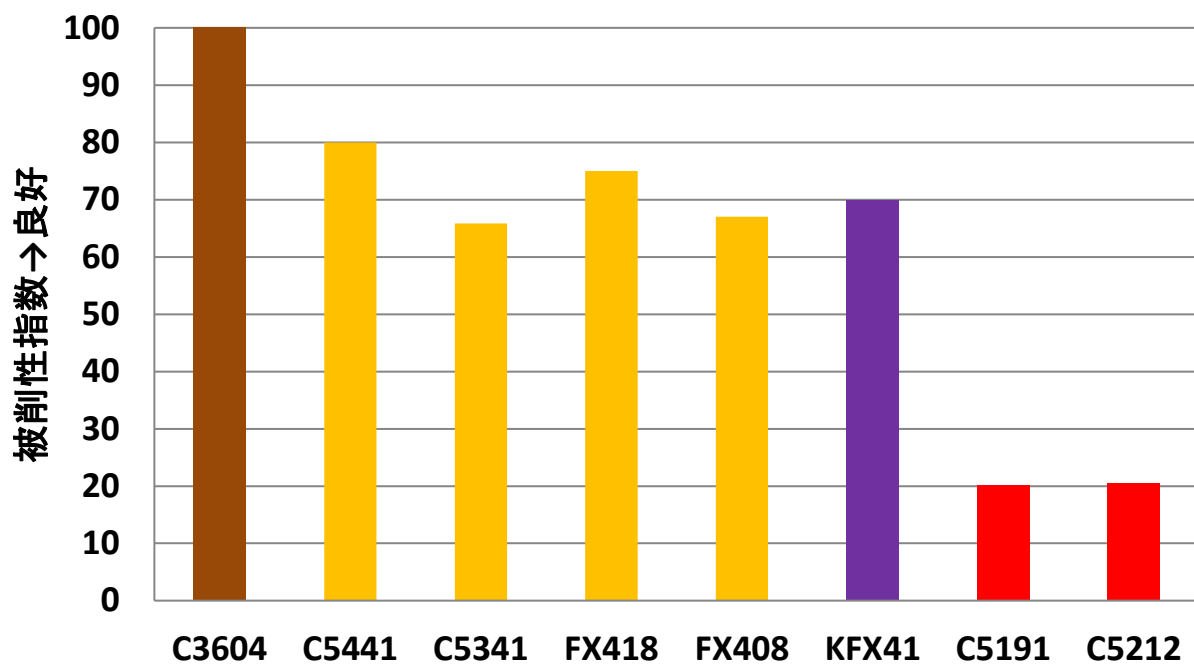
合金編號	比重	導電率 %IACS
KFX41	8.84	17-19

製造所

株式会社藤井製作所

成分設計

株式会社栗本鐵工所



*鑽孔抵抗、面削、切屑形狀等綜合評價



*車床面削碎屑 (直徑17mm、轉速450 rpm、進給0.75mm、切削深度0.5mm)

