



Certificate of Conformance

Material: CARLTSOE SAFETY TOOLS® Tin Phosphorus Bronze
CARLTSOE SAFETY TOOLS® Brass

Date:

As manufacturer of **CARLTSOE SAFETY TOOLS®**, we hereby certify our tools provide Non-Sparking, Non-Magnetic and Non-Corrosive properties.

CARLTSOE SAFETY TOOLS®, made from Tin Phosphorus Bronze and Brass have the following typical nominal properties:

Chemical Composition:

Wire: Tin Phosphorus Bronze

Cu	Balance
Sn	6.0 ~ 7.0 %
P	0.10~0.25%
Others	≤ 0.5%

Cup and nut: Brass

Cu	Balance
Zn	34-36%
Others	≤0.5%

Mechanical Properties :

Tensile Strength	470 N/mm²
Elongation	13 %

Mechanical Properties :

Tensile strength	290 N/mm²
Elongation	40%

CARLTSOE SAFETY TOOLS® Tin Phosphorus Bronze & Brass alloys helps fulfill the recommendation in the European ATEX directive for working in Zones 1, and 2 (gas, mist, or vapor) and Zones 21 and 22 (dust).

Hand tools are not within the scope of the European ATEX 94/9/EC (tools have no own source of ignition). Risk assessments must be made by the employer for the safety of workers using hand tools (see EN 1127-1 and EN 13463-1)

Disclaimer: Final responsibility remains with the employer for the safety of workers using hand tools based on his risk assessment (EN 1127-1 / EN 13463-1).

The above text is not binding and reference must always be made to the original documents.

We reserve the rights to change above specifications when necessary. If changes are made, we will make all efforts to inform our authorized distributors immediately.



Rick Waddell
Quality Manager

CARLTSOE SAFETY TOOLS

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