

**Challenge Time
for
Materials Engineers
(3)**

An opportunity to test your knowledge

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What alloy is used in the fabrication of explosion-proof equipment (anti spark):

- A. AISI 420
- B. Hardox
- C. Ti 6-4
- D. silicon bronze

Please think first and then go to the next page for the answer.

The correct answer is **D**

The term 'non-sparking tools' refers to items that help prevent the occurrence of explosions and fires while working in so-called ATEX zones (acronym for ATmosphere EXplosives). These tools consist of brass, bronze, copper-nickel, copper-aluminum or copper-beryllium alloys (beryllium bronze).

Containing up to 3% silicon, **silicon bronzes** are characterized by high mechanical and antifriction properties.

Because silicon bronzes do not generate sparks under shocks, they can be used in the fabrication of **explosion- proof equipment (Anti spark)**