

# UTENSILI ANTISCINTILLA CERTIFICATI BAM

Gli utensili antiscintilla ABC Tools grazie alla loro composizione in rame-berillio (Be-Cu) o alluminio-bronzo (Al-Br) sono adatti per operare in assoluta sicurezza in ambienti a potenziale rischio di esplosioni, con presenza di liquidi o gas infiammabili, o per applicazioni che richiedono l'utilizzo di utensili amagnetici e resistenti alla corrosione.

La lega rame-berillio (Be-Cu) è adatta ad operare in tutti gli ambienti indentificati dai gruppi I, IIA, IIB, IIC ad esclusione di ambienti con presenza di acetilene in quanto l'alta percentuale di rame presente negli utensili potrebbe causare una scintilla.

La lega alluminio-bronzo (Al-Br) è anch'essa adatta ad operare in tutti gli ambienti tranne in quelli del gruppo IIC.

## Caratteristiche tecniche del materiale di costruzione degli utensili antiscintilla


### Leghe di rame-berillio (Be-Cu)

Composizione: Be 1,5% - 2,3% - Co+Ni min. 0,2% - Co+Ni+Fe max. 1,2% - Cu a compensazione	Resistenza alla trazione: 1117 ~ 1326 N/mm <sup>2</sup>
Durezza: 283 ÷ 365 Brinell	Magnetismo: 0
Limite di snervamento: 840 ÷ 880 N/mm <sup>2</sup>	Peso specifico: 8,60
Coefficiente alla dilatazione: 0.000012%	Resistività: 8 ~ 6
Estensibilità: 1,0%	

### Leghe di alluminio-bronzo (Al-Br)

Composizione: Al 10% - 12% - Ni 4,6% - Fe+Mn <5,8% - Cu a compensazione	Resistenza alla trazione: 782 ~ 989 N/mm <sup>2</sup>
Durezza: 229 ÷ 291 Brinell	Magnetismo: 1,2
Limite di snervamento: 450 ÷ 550 N/mm <sup>2</sup>	Peso specifico: 8,10
Coefficiente alla dilatazione: 0.000015%	Resistività: 8 ~ 12
Estensibilità: 5,0%	

Gli utensili antiscintilla ABC Tools sono certificati dall'Istituto per la ricerca e il collaudo BAM, secondo Direttiva Europea 99/92/EC.



**CERTIFICATE**

**BAM/ZBF/003/23**      2<sup>nd</sup> version

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Hereby it is confirmed by the BAM Certification Body, that the material

<b>Aluminum-Bronze Alloy</b>	
of the manufacturer <b>ABC Tools S.p.A.</b> Viale Europa, 68/70 20093 Cologno Monzese (MI) Italy	
for impacts against	<input checked="" type="checkbox"/> steel <input type="checkbox"/> concrete
with a maximal impact energy of	61 Nm
in potentially explosive atmospheres with the fuel gases	<input checked="" type="checkbox"/> of explosion groups I, IIA, IIB <input checked="" type="checkbox"/> acetylene <input checked="" type="checkbox"/> of explosion group IIC

meets the requirements of BAM Standard operating procedure STAA-GAS-005 „STAA zur Schlagfunkenprüfung von Werkstoffpaarungen“ approved April 2023 and thus non-sparking tools made of this material are appropriate for use in potentially explosive atmospheres of zone 1 and/or 21 (in accordance with the European Directive 1999/92/EC) for the fuel gases listed above, if the terms and conditions set out in the annex to this certificate are complied with.

The certification is based on certification contract **Number BAM-ZBF-0003-2022-ABC TOOLS** dated 14<sup>th</sup> November 2022 and comprises according to standard DIN EN ISO/IEC 17065:2013 a design-type test with the manufacturer's declaration of conformity (BAM Certification system I).

The materials certified by BAM may be labelled with the certification mark "BAM Design-type tested" and/or "BAM Baumustergeprüft".

**The certificate is valid until 9<sup>th</sup> July 2028.**

BAM test report **23004760** dated 30<sup>th</sup> June 2023 and procedure No. BZ5-G5/031/22, /045/22 and /021/24 are constituent parts of this certificate.

**Bundesanstalt für Materialforschung und -prüfung (BAM)**  
Unter den Eichen 87, 12205 Berlin, 17<sup>th</sup> September 2024

By order 17.09.2024 Dr. J. Sunderkötter BAM Certification Officer	By order Dr. M. Schmidt BAM Assessor
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KW0205.P01 F01 /2.8, en July 2024



**CERTIFICATE**

**BAM/ZBF/004/23**      2<sup>nd</sup> version

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Hereby it is confirmed by the BAM Certification Body, that the material

<b>Beryllium Copper Alloy</b>	
of the manufacturer <b>ABC Tools S.p.A.</b> Viale Europa, 68/70 20093 Cologno Monzese (MI) Italy	
for impacts against	<input checked="" type="checkbox"/> steel <input type="checkbox"/> concrete
with a maximal impact energy of	61 Nm
in potentially explosive atmospheres with the fuel gases	<input checked="" type="checkbox"/> of explosion groups I, IIA, IIB <input checked="" type="checkbox"/> acetylene <input checked="" type="checkbox"/> of explosion group IIC

meets the requirements of BAM Standard operating procedure STAA-GAS-005 „STAA zur Schlagfunkenprüfung von Werkstoffpaarungen“ approved April 2023 and thus non-sparking tools made of this material are appropriate for use in potentially explosive atmospheres of zone 1 and/or 21 (in accordance with the European Directive 1999/92/EC) for the fuel gases listed above, if the terms and conditions set out in the annex to this certificate are complied with.

The certification is based on certification contract **BAM-ZBF-0003-2022-ABC TOOLS** dated 14<sup>th</sup> November 2022 and comprises according to standard DIN EN ISO/IEC 17065:2013 a design-type test with the manufacturer's declaration of conformity (BAM Certification system I).

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