

# **TECHNICAL INFORMATION SPARK-PROOF TOOLS**

Beta Utensili S.p.A. is in the field of sales of Non sparking safety hand-tools; the scope of the tests and the chemical analysis here under reported is to check the real technical features for these tools and above all to confirm that they belong to the category of "non sparking safety tools"

### These information refer to the following items:

30BA	330BA	1046BA	1719BA	
31BA	363BA	1082BA	1727BA	
34BA	378BA	1150BA	1728BA	
39BA	386BA	1162BA	1737BA	
42BA	921BA	1166BA		
42BA/AS	921BA/21	1270BA		
55BA	921BA/22	1270BA/LP		
55BA/AS	921/42	1272BA/PH		
58BA	921BA/50	1370BA		
78BA	926BA	1379BA		
78BA/AS	926BA/50	1380BA		
89BA	961BA	1381BA		
90BA	963BA	1703BA/P		
96BA	964BA	1703BA/PL		
99BA	966BA	1717BA		
110BA	966BA/V	1717BA/1		

## **Chemical Composition**

	Ве	1.8 ÷ 2.3%
Composition	Co+Ni	min 0.2%
	Co+Ni+Fe	max 1.2%
	Cu	balance

#### **Main Mechanical Features**

Hardness	310 ÷ 360 Brinell	
Tensile strength	1050 ÷1200 N/mm <sup>2</sup>	
Yield point	840 ÷ 880 N/mm <sup>2</sup>	

### Compliance with the Spark-proof specifications :

In order to verify the effective compliance of spark-proof specifications , we made a specific test grinding the tool on a grinding machine, verifying the absence of sparks .

Test features:

Item tested: 96BA size 10 mm

Environment test: The test was made without the artificial lighting

Machine used: Belt sanding machine

**Speed:** ~ 3.000 rpm

Belt: grain 60

Max pressure: ~ 40 N/cm<sup>2</sup>

Application force time: 10s + 10s

Result: No sparks

#### **Conclusions:**

On the grounds of the effected trial, and of the results - no sparks during the grinding phases - and considering the chemical composition of alloy used , these tools can be considered "Non sparking safety tools "

**Technical Manager**