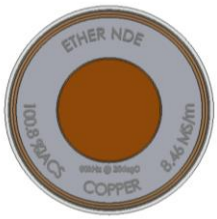
EThер NDE Application Note: AP019

Conductivity Reference Blocks - NIST

Used as a reference in the application of electrical conductivity measurement of non-ferrous metals, ideal for both laboratory and field use. Blocks are supplied with calibration certificates.



Product Code:

EThер NDE Part No.	Material	% IACS (Value Range)	MS/m MegaSiemens per meter (Value Range)
ATBC-COPPER	Copper	(99.9 – 102.5)	(57.94 – 59.45)
ATBC-ALU1200	Aluminium Alloy, 1200-H4,	(57.2 – 62.0)	(33.18 – 35.96)
ATBC-ALU6082	Aluminium Alloy, 6082-T6	(45.1 – 49.0)	(26.16 – 28.42)
ATBC-ALU6061	Aluminium Alloy, 6061-T6	(40.5 – 45.0)	(23.49 – 26.1)
ATBC-ALU2014A-T6	Aluminium Alloy, 2014A-T6	(34.7 - 40.3)	(20.13 – 23.37)
ATBC-ALU7075	Aluminium Alloy, 7075-T6	(28.8 – 31.0)	(16.70 – 17.98)
ATBC-ALU5083	Aluminium Alloy, 5083	(26.6 - 30.0)	(15.43 – 17.40)
ATBC-BRASS	Brass, CZ 121	(23.3 – 26.6)	(13.51 – 15.43)
ATBC-PBRONZE	Phosphor Bronze	(13.0 – 18.0)	(7.54 – 10.44)
ATBC-NICSILVER	Nickel Silver, LC1291	(9.0 – 9.9)	(5.22 – 5.74)
ATBC-STST303S	Stainless Steel, 303 S	(2.1 – 2.5)	(1.22 – 1.45)
ATBC-TITANIUM	Titanium, 6AL-4V	(1.0 - 1.1)	(0.58 – 0.64)

Specification:

Blocks are calibrated at 20degC, at a frequency of 60kHz

The limits of permissible errors are ± 1%IACS of value for values of 35%IACS and lower, ± 0.35%IACS for measured values between 35%IACS and 62%IACS and ± 1%IACS for measured values 62%IACS and above.

Surface finish of 8Ra = 0.2µm

The conductivity of each reference standard is determined for the central area of diameter 15mm of front face by comparison with similar material, the conductivity of which has been determined in terms of traceable electrical standards.

All supplied blocks are calibrated, calibration is traceable to the National Institute of Standards and Technology under NIST and calibrated in accordance to ASTM B193 including MIL-STD- 1537 and complies with Boeing Process Spec. BAC5651.

Note:

Conductivity bar stock values vary, for current stock values please contact sales@ethernde.com.