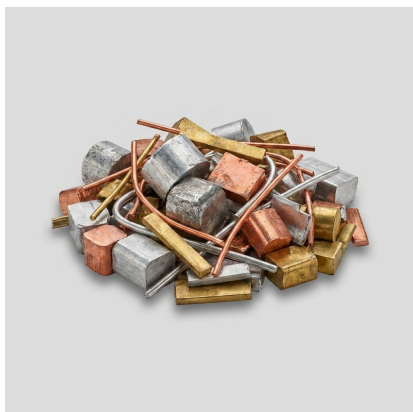


APPLICATION NOTE

SORTING OF ALLOYS AND PURE NON-FERROUS METALS BY CONDUCTIVITY MEASUREMENT

Visual inspection can't reliably identify scrap alloys, lab tests are too slow. SIGMATEST enables fast on-site sorting by conductivity.



THE CHALLENGE

In the scrap industry, even small differences in alloy composition significantly impact market value. Pure copper or aluminum achieves considerably higher prices than mixed or alloyed materials. Scrap yards therefore require a fast, robust and reliable method to distinguish pure non-ferrous metals from alloys directly on site. Visual inspection is insufficient, and laboratory analysis is too slow for daily high-volume operations.

THE SOLUTION

The SIGMATEST determines electrical conductivity using the eddy current method. Since each non-ferrous metal and alloy has a characteristic conductivity value, materials such as pure aluminum, copper, brass, lead or titanium can be identified quickly and sorted into defined batches. Active sorting ranges with acoustic alarms allow operators to classify scrap without constantly monitoring the display.



THE RESULT

Material sorting becomes faster, more precise and economically transparent. Higher-purity batches achieve better market prices, while alloy mix-ups are avoided. The device delivers stable and repeatable measurements, even through non-conductive coatings up to 750 µm. Minimal training effort enables efficient use by the entire team in demanding scrap yard environments.

THE PRODUCTS

SIGMA TEST

Portable conductivity meter for fast and reliable testing of non-ferromagnetic metals



SIGMA TEST TCM

Electrical conductivity measurement of non-ferromagnetic metals



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