

Sorting of alloys and pure non-ferrous metals by conductivity measurement with SIGMATEST

Case & challenge

In the scrap industry, there can be significant distinction between the paid prices for sorted non-ferrous metals like pure and alloys of copper or aluminum. As a result, scrap yards focusing on non-ferrous metals are seeking efficient instruments for rapid material sorting. They require devices that are durable and reliable. Our product, SIGMATEST, has established itself as one of the top solutions for this challenge over the years.

Application solution

Based on electrical conductivity of the materials it is easy and fast to declare which related non-ferrous metal is on hand (e.g. pure or alloy of Aluminum, Copper, Brass, Lead, Titanium).

Based on this, the material is sorted into different batches and the purer the non-ferrous metal is, the higher value, and of course higher prices on market, can be reached.

The SIGMATEST is usually used with active sorting ranges setup for alloys and for pure non-ferrous metals. Very frequently acoustic alarms are active for sorting ranges. This allows the operator not to have to monitor the display and still to know where to place every single piece of scrap.



Mobile material sorting with SIGMATEST

Benefits of the solution

Measurement with SIGMATEST is fast and very stable as well as highly precise.

If the buyer and seller of the material are both equipped with the same device (even different instrument generations) comparisons of material can very easily be made.

Further, due to the clear set up of the user interface, only short training times and only very small user influences are given. The device can easily be operated by an entire team.

Additionally, measurements can be made through non-conductive coatings like paints up to 750 μm in thickness. This also applies for surfaces that are dirty, ensuring accurate readings are obtained.

Technical setup

- SIGMATEST device
- 14 mm probe
- Optional: Mobile Power Kit

Calibrated device on ambient conditions. Based on material thickness relevant measuring frequency is chosen. Active sorting ranges with acoustic signalization.

