Task:

Application field: Environment

Material: Copper wire with PVC insulation, PVC foil contaminated with Cd

Feed size: 100-300 mm (pre-cut wire length)

Material specification(s): elastic, ductile

Customer requirement(s): < 2 - 3 mm; determination of Cd critical value according to EU directives

Subsequent analysis: X-ray Fluorescence Analysis

Solution:

Selected instrument(s): SM 2000 Heavy-Duty Cutting Mill

Configuration(s): Standard hopper; bottom sieves of stainless steel with square holes of 4 / 2 mm; ring-type filter with conidur hole body for collecting receptacle 5 l

Parameter(s): Revolution speed approx. 750 rpm

Time: 3 min. (per test)

Achieved result(s): predominantly < 3 mm; sufficient for the XRF as a bulk material.

Remark(s): PVC wire insulation is investigated with respect to the acceptable Cd / Hg / Pb critical values which is of a high importance for car manufacturers and their suppliers. The PVC foil was systematically contaminated with Cd to receive a reference standard for the calibration of XRF analyzers.

Recommendation: We recommend our Heavy Duty Cutting Mill SM 2000 for...
the pre-cutting of elastic, ductile wire residues and PVC foils following the above mentioned conditions.

**Pictures of the sample**

**Fig. 1:** Example of initial cable sample

**Fig. 2:** Sample after cutting in SM 2000; bottom sieve 2 mm square holes

**Fig. 3:** Ground PVC cladding after Cu separation