

Task:**Application field:** Agriculture**Material:** soil samples (see pictures below)**Feed size:** 0-2 mm**Feed quantity:** 35 g (per sample)**Material specification(s):** medium-hard, dry**Customer requirement(s):** < 250 µm, for determination of carbon (C) nitrogen (N)**Subsequent analysis:** TOC Total Bonded Organic Carbon**Solution:****Selected instrument(s):** PM 400 Planetary Ball Mill**Configuration(s):** Grinding jar 125 ml, Zirconia;
6 Grinding balls Zirconia 20 mm Ø;
Alternatively: grinding jar 125 ml, Achat
6 Grinding balls Agate 20 mm Ø**Parameter(s):** 280 rpm**Time:** 10 min. (7 min. with Zirconia jar)**Achieved result(s):** < 250 µm, with both grinding sets**Remark(s):** Generally it is possible to grind soil samples also in the Mixer Mill MM 400, but the maximum sample quantity for a 35 ml Zirconia jar is approx. 10 - 12 ml.**Recommendation:** For sample preparation of soil samples the Planetary Ball Mill PM 400 is suitable under the above mentioned conditions.

The application report is based solely on the processing of the available sample material in the indicated amount. No legal claims shall be derived from this test report.

Subject to technical modification and errors.

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Pictures of the sample



Fig. 1: Soil sample with clay fraction



Fig. 2: Soil sample with sand fraction