### Task:

**Application field:** Environment  
**Material:** Silicon (3 samples: foil / fragments + balls / wafers)  
**Feed size:** < 50 mm  
**Feed quantity:** 100 g  
**Material specification(s):** hard brittle  
**Customer requirement(s):** < 100 µm; 150 g/batch  
**Subsequent analysis:** X-ray Fluorescence Analysis

### Solution:

**Selected instrument(s):** Planetary Ball Mill PM 100  
**Configuration(s):** Grinding jar "comfort" tungsten carbide 250 ml; 14 grinding balls tungsten carbide 20 mm ø  
**Parameter(s):** Revolution speed: 400 rpm  
**Time:** 10 min.  
**Achieved result(s):** predominantly < 100 µm  
**Remark(s):**  
**Recommendation:** For fine grinding of silicon the Planetary Ball Mill PM 100 is suitable under the above mentioned conditions.
Pictures of the sample

Fig. 1: original sample 1 (foil)

Fig. 2: original sample 2 (fragments + balls)

Fig. 3: original sample 3 (wafers)