## Task:

**Application field:** Food

**Material:** Gummy Bears, Fruit Slices, Life Savers, Caramel Creams

**Feed size:** 10 – 40 mm

**Feed quantity:** 10 – 30 g

**Material specification(s):** Depending on the sample: medium-hard, soft, brittle, tough or/and sticky

**Customer Requirement(s):** Tests with ZM 200

**Subsequent analysis:** not defined

## Solution:

**Selected instruments(s):** Ultra Centrifugal Mill ZM 200

**Configuration(s):**
- Push-fit rotor with 12 teeth;
- Ring sieves: 1.5 / 0.5 / 0.25 mm trapezoid holes;

**Parameter(s):** Revolution speed 18000 rpm

**Time:** Approx. 5 min.

**Achieved result(s):** < 0.5 mm / < 0.25 mm (depending on the ring sieve)

**Remark(s):**
1. Pre-embrittlement of the sticky, tough candies in liquid nitrogen.
2. Coating of the cassette with talcum powder to avoid sticking of the pre-ground particles
3. Pre-grinding of the pre-embrittled candies with the 1.5 mm ring sieve.
4. Fine grinding of a mixture of the pre-ground samples with talcum with a ring sieve 0.5 or 0.25 mm

**Recommendation:** For the grinding of candies with different breaking properties our Ultra Centrifugal Mill ZM 200 is suitable under the above mentioned conditions.

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Pictures of the sample(s):

**Fig. 1:** Fruit Slices before grinding

**Fig. 2:** Fruit Slices after pre- and fine grinding with ring sieve 0.25 mm

**Fig. 3:** Lifes Savers before grinding

**Fig. 4:** Lifes Savers after fine grinding with ring sieve 0.25 mm

**Fig. 5:** Caramel Creams before grinding

**Fig. 6:** Caramel Creams after fine grinding with 0.5 mm ring sieve

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