

Task:**Application field:** Food**Material:** Ground coffee, 3 different qualities (fine, coarse, normal)**Feed size:** 0-2 mm**Feed quantity:** Approx. 60 g**Material specification(s):** medium-hard, dry**Customer requirement(s):** Sieving 0.063 - 1.6 mm**Subsequent analysis:** not defined**Solution:****Selected instrument(s):** Sieve Shaker AS 200 control**Configuration(s):** Clamping device „comfort“ for test sieves 200/203 mm Ø;
Sieves according to ISO 3310-1: mesh sizes 0,063 / 0,1 / 0,315 / 0,5 / 0,8 / 1,0 / 1,25 / 1,6 mm
Collecting pan stainless steel, 200 mm Ø, height 50 mm**Parameter(s):** Amplitude 1.2 mm; 10 s interval**Time:** 5 min.

**Achieved
result(s):**EasySieve Reports:
Sample "Coarse grinding"

Size class [mm]	p3 [%]	Q3 [%]
< 0.063	0.3	0.3
0.063 - 0.100	0.0	0.3
0.100 - 0.315	7.8	8.2
0.315 - 0.500	5.6	13.7
0.500 - 0.800	17.8	31.5
0.800 - 1.000	26.1	57.7
1.000 - 1.250	28.9	86.6
1.250 - 1.600	11.1	97.7
> 1.600	2.3	100.0

Sample "Filter grinding"

Size class [mm]	p3 [%]	Q3 [%]
< 0.063	0.0	0.0
0.063 - 0.100	0.0	0.0
0.100 - 0.315	10.4	10.4
0.315 - 0.500	8.3	18.7
0.500 - 0.800	52.9	71.6
0.800 - 1.000	20.9	92.5
1.000 - 1.250	7.0	99.5
1.250 - 1.600	0.5	100.0
> 1.600	0.0	100.0

Sample "Continental"

Size class [mm]	p3 [%]	Q3 [%]
< 0.063	0.2	0.2
0.063 - 0.100	0.0	0.2
0.100 - 0.315	12.4	12.6
0.315 - 0.500	13.9	26.4
0.500 - 0.800	70.6	97.0
0.800 - 1.000	2.1	99.2
1.000 - 1.250	0.5	99.7
1.250 - 1.600	0.2	99.8
> 1.600	0.2	100.0

Evaluation by the customer.

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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Remark(s):

Sieving of the coffee samples for 5 and 7 min.
The particle size distribution after 5 and 7 min. is identical.
Thus the sample is already completely sieved after 5 min..
The compared graphs are attached as well.
Due to the fatty material properties the coffee powder tends to clog the sieve even after drying.
For sieves smaller 500 µm 20 staetite balls were used as sieving aids.
Aerosil, mixed with the coffee powder, could improve the material properties for sieving.

Recommendation: For sieving coffee powder our Sieve Shaker AS 200 control and our software EasySieve are suitable.