

1. EQUIPMENT AND MACHINERY

1.1 Determination of grain size

- Manual sieve 300 x 300 according to DIN 4188
- Sieve Ø 200 x 50 according to DIN 4188
- Air jet sieve Alpine 200 LS-N
- Mastersizer 2000 Malvern
- Blaine measuring device

1.2 Determination of mass

- AND Laboratory balance GX 6100
- AND Analytical balance GR 200
- AND HV 200 KGL
- Sartorius laboratory balance LP 620 P
- Crane balance Kern HUM 3000 L 1000

1.3 Determination of density

- Bulk density – test vessel 1 litre and 10 litres
- Pycnometerics – Pycnometer small, middle, large

1.4 Determination of humidity

- Moisture analyzer MX 50
- Drying cabinet TK/L 4105

1.5 Grinding/Crushing

- BOND mill (for balls) LM 0303
- BOND mill (for rods) LM 0306
- Batch mill LM 0504_12
- Batch mill LM 0809 70-100
- Batch mill LM 0504_12 Iron free (Al₂O₃)
- Vertical roller mill VM 20
- Continuous wet grinding mill PA 0607 with hydro cyclone or sieve
- Continuous dry grinding mill PA 1.2 x 3.0 m with 2 air separators
- Zeisel mill (under construction)
- Laboratory jaw crusher BB 200



2. OUR TEST FACILITY CAPABILITIES INCLUDE:

EXAMINATIONS, DETERMINATIONS AND DESCRIPTION OF SEAL AND POROUS ROCK GRANULATIONS:

- Examination of rock granulations by fragmentation into specific grain fractions by crushing (N)
- Determination of Work Index according bond (Bond test)
- Description of sampling
- Examination of surface humidity (Thaulow-procedure)
- Examination of humidity
- Examination of grading
- Examination of particle shape
- Examination of bulk density
- Examination of grain gross density (drainage procedure)
- Examination of drainable components (wash procedure)
- Examination of resistance against frost
- Examination of water absorption of porous rock granulations
- Examination of Sulfate content (N)
- Examination of Chloride content (N)

EXAMINATIONS, DETERMINATIONS AND DESCRIPTION OF FINE AND SUPER FINE ROCK GRANULATIONS (CEMENT, CLINKER, LIMESTONE AND OTHERS):

- Examination of grain size distribution by sieve analysis
- Examination of grinding refinement with determination of specific surface according to Blaine
- Examination of bulk density (according to Boehme)
- Examination of density (pure density)
- Examination of humidity by humidity tester
- Examination of annealing loss (up to 1,300°C)
- Determination of space stability

SPECIAL EXAMINATION IN THE RANGE OF REPROCESSING TREATMENT AND RECYCLING:

- Recycling glass
- Waste material
- Waste from dust
- Waste products from foundries

3. GRINDING AND SEPARATION TEST PLANT

- Examinations and investigations of minerals on grindability related to the throughput, to the resulting sieve characteristic and necessary energy consumption in the open dry circuit.
- Examinations and investigations of minerals on grindability related to the throughput, to the resulting sieve characteristic and necessary energy consumption in the closed dry circuit.
- Examinations and investigations of minerals on grindability related to the throughput, to the resulting sieve characteristic and necessary energy consumption in the open wet circuit.
- Examinations and investigations of minerals on grindability related to the throughput, to the resulting sieve characteristic and necessary energy consumption in the closed wet circuit.
- Examination of separation ability / grinding fines with separation (air separator / cyclone / Hydro-cyclone).

