

JIS

JAPANESE INDUSTRIAL STANDARD

**Test methods for sieving
of chemical products**

JIS K 0069—1992

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Test methods for sieving
of chemical products

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1. Scope This Japanese Industrial Standard specifies the general methods to test both residue on a sieve and particle size distribution of granular or powder chemical products by means of screening.

Remarks 1 : The chemical products mentioned here generally mean various products prepared through chemical reaction, however, when measuring methods other than these methods are prescribed in the standards of other individual product or group of products, the test should conform to the method in the standard.

2 : In some chemical products, the safety for the tests can not always be secured when the tests are carried out because of its volatility, explosiveness, or radioactivity. The methods prescribed in this standard should be applicable to the products of which safety is satisfactorily confirmed since they are only general methods.

3 : The standards applicable to this standard are shown in Attached Table 1.

2. General matters

2.1 Definition of terms The definition of terms used in this standard shall be as follows except those in JIS Z 8815.

- (1) residue on sieve This means percentage of the ratio of the mass of residue on a sieve to the mass of sample.
- (2) particle size distribution This means, when 2 or more sieves with different sieve opening are employed, the cumulative percentage ratios of mass of oversized material on each sieve and mass of undersize material passed the lowest sieve to the mass of the sample.

Remarks : Particle size distribution is called alternatively size distribution.

2.2 Matters in common Matters in common to the test shall follow the description in JIS K 0050 and JIS K 8815, and rounding-off of numerical values shall follow JIS Z 8401.

3. Kind of test methods by screening The kind of test methods by screening shall be as follows.

3.1 Dry screening

- (1) Manual screening
- (2) Mechanical screening

2
K 0069-1992

3.2 Wet screening

4. Selection of test method by screening The criteria to select test method by screening shall be as follows.

4.1 Sample suitable to dry screening

- (1) Sample whose grain size is mainly 45 μm or larger
- (2) Sample whose on water adhered particles can be removed by drying

4.2 Sample suitable to wet screening

- (1) Sample whose grain size is mainly smaller than 45 μm
- (2) Sample whose particles have tendency to adhere to each other by drying
- (3) Sample whose particles have high adhesive and aggregative property
- (4) Sample whose particles have tendency to adhere on a sieve owing to static electricity produced while testing

5. Sampling With reference to the quantity shown in Table 1 and Table 2, the sample shall be taken so as to represent the lot, and when the amount taken is too much, it shall be reduced to a suitable quantity according to 6.5 of JIS M 8100.

Table 1. Criterion of sample quantity charged in a standard sieve with 200 mm diameter

Sieve opening	The largest apparent volume of sample cm^3	The largest volume of oversize material after screening cm^3
22.4 mm	1600	800
16	1000	500
11.2	800	400
8	500	250
5.6	400	200
4	300	150
2.8	240	120
2	200	100
1.4	160	80
1	140	70
710 μm	120	60
500	100	50
355	80	40
250	70	35
180	60	30
125	50	25
90	42	21
63	35	17
45	30	15