

Methods of chrysotile quality control

Dry method of fractional structure evaluation of chrysotile 0-6 groups. Method is based on definition of quantitative distribution of fibers of chrysotile on fractions by the way screening on sets of the control device. Test on the control device, founded by the Canadian Chrysotile Association, has the world recognition as the standard on fiber classification. The control device - the horizontal roar with longitudinally vertical fluctuations on which platform 4 boxes with the sizes of openings sieve in light are established, to mm: 12,7; 4,8; 1,35; 0,4.

Dry method of evaluation of fractional structure of chrysotile 3-6 groups on pneumatic qualifier. Method consists in definition of quantitative distribution of fibers of chrysotile on fractions at screening on the sieve under the influence of the current of air. The pneumatic qualifier allows to define the mass fraction of fiber more than 1,18 mm and the mass fraction of the pedigree dust less than 0,075 mm.

Method of evaluation of average length of fiber of chrysotile 0,1,2 groups and contents of non-spinnable fiber (less than 5 mm). Method consists in definition of quantitative distribution of chrysotile fiber on length at screening him on analyzer (ADA) sets with the sizes of cells, mm: 18,0; 16,0; 10,0; 6,0; 3,5; 0,5. Chrysotile of textile groups delivered for export, (on request of customers) in addition is tested by the techniques developed by the Canadian Chrysotile Association and English institute of textile products both recognized by all manufacturers and consumers.

Wet method of evaluation of fractional composition of fiber on the hydroqualifier Turner-Newall. Method consists in definition of quantitative distribution of fibers of chrysotile on fractions on five horizontally established sets under the influence of vertical water flow. The standard sizes of openings sieve in light, mm: 2,4; 1,2; 0,6; 0,3; 0,075.

Wet method of evaluation of degree of separation capacity of fiber on the elutriator. Method consists in definition of quantitative distribution of fractions of chrysotile on separation capacity under the influence of the water flow which is pouring from one measured cylinder in another.

Method of wet volume evaluation. Method is based on volume measurement of chrysotile in the damp condition after hashing of his hinge plate with water in the inverter and the subsequent upholding in the graduated cylinder.

Method of fiber specific surface area evaluation on Rapid-Tester (OPA). Method is based on the principle of air permeability and consists in measurement of resistance of the compressed sample of fiber with the fixed weight and volume at constant hydraulic pressure.

Method of determination of speed of the filtration of chrysotile in limy solution. Method consists in measurement of speed, with which water chrysotile suspension is dehydrated under certain conditions.

Method of determination of durability of chrysotile fiber in chrysotile cement samples. Essence of the method consists in strength measurement on the cross-section rupture of specially prepared chrysotile cement samples on the Dillon device.



Analyzer of fiber length



Hydroqualifier Bauer-McNett



Control device



Pneumatic qualifier



Specific surface definition on Rapid-Tester



Evaluation of speed of filtration



Elutriator



Hydroqualifier Turner-Newall