1.12 Powder fineness and sieves

A. Powders

The degree of coarseness or fineness of a powder is differentiated by the nominal aperture size of the mesh of the sieve through which the powder is able to pass, expressed in µm.

The following terms are used in the description of powders:

Coarse powder (2000/355). A powder of which all the particles pass through a No. 2000 sieve, and not more than 40% through a No. 355 sieve.

Moderately coarse powder (710/250). A powder of which all the particles pass through a No. 710 sieve, and not more than 40% through a No. 250 sieve.

Moderately fine powder (355/180). A powder of which all the particles pass through a No. 355 sieve, and not more than 40% through a No. 180 sieve.

Fine powder (180). A powder of which all the particles pass through a No. 180 sieve.

Very fine powder (125). A powder of which all the particles pass through a No. 125 sieve.

When the fineness of a powder is described by means of a number, it is intended that all the particles of the powder should pass through the sieve distinguished by that number.

B. Sieves

The wire sieves used in sifting powdered drugs are distinguished by numbers, which indicate the nominal aperture size expressed in µm.

The sieves are made of wires of uniform circular cross-section, in accordance with the specifications given in Table 2.

TABLE 2. WIRE MESH SIEVES

Number of sieve (µm)	Nominal size of aperture (mm)	Nominal diameter of wire (mm)	Approximate screening area (%)
2000	2.00	0.90	48
710	0.710	0.450	37
500	0.500	0.315	38
355	0.355	0.224	38
250	0.250	0.160	37
212	0.212	0.140	36
180	0.180	0.125	35
150	0.150	0.100	36
125	0.125	0.090	34
90	0.090	0.063	35
75	0.075	0.050	36
45	0.045	0.032	34

The nominal size of aperture of wire mesh sieves has been selected principally from among those recommended in the ISO standard 565-1972.