*MT 193 ~~FRIABILITY~~ ATTRITION OF TABLETS

SCOPE

The method is suitable for determined the ~~friability~~ attrition of non-coated tablets under defined conditions. ~~Friability~~ Attrition is defined as change of the tablet surface and the refraction by jarring impact.

OUTLINE OF METHOD The tablets are circulated/turned around in a rotating dish with a build-in, bow-shaped baffle.

APPARATUS

~~*Friability*~~ *Attrition tester* e.g. supplied by ERWEKA, type 10 or Tar 10. Ensure that the material of the drum is not subjected to static electricity build-up.
Sieve plate in accordance with ISO 3310-1, 2 mm sieve (stainless steel)
Balance
Stopwatch

PROCEDURE

(a) Determination. Take a sample of tablets representative in terms of particle fraction and moisture content (about 65 g) and remove any dust by sieving using a 0.125 mm sieve. The mass of the residue on the sieve to be used for the measurement should be at least 60 g. Weigh (to the nearest 0.01 g) the sample (*E* g) and transfer it to the dish of the friability tester. Turn the dish for 100 rotations (about 4 min). Then transfer the sample to a 2 mm sieve and sieve. Discard the fraction that passes through the sieve and weigh the residue together with the particles that remain adhered to the sieve (*R* g).

(b) Calculation

$$\text{~~Abrasion resistance~~Attrition} = \frac{E - R}{E} \times 100\ \%$$

Where:
E = mass of sample (g)
R = mass of residue on the sieve (g)

* CIPAC method 2005. Based on a method from the European Pharmacopeia, Supplement 2000, *p* 87f.