

PTF 10E

Tablet Friability Test Instrument

The PTF 10E single-drum tablet friability test Instrument with fixed speed is manufactured in compliance to the USP <1216>, EP <2.9.7> and other Pharmacopoeias. This version is available as single or dual drum instruments.



PTF 10E single-drum Tablet Friability Test Instrument

General Information

One of the testing criteria of mechanical strength of tablets and cores is friability and abrasion testing. During the process of coating, transportation and packing the tablet will lose some amount of weight. To measure the weight loss, the samples are counted and weighed. Then the friability test is performed following the individual monographs of the relevant Pharmacopoeia. The tablets are tumbled at each turn of the drum of the friability testing instrument by a curved projection that extends from the middle of the drum to the outer wall.

**10° Feature**

Once the friability test is finished, the samples have to be de-dusted and weighed again. The weight difference before and after the test is determined as friability; this usually should not exceed 1%. Tablets of a weight >650mg or with a bigger diameter or odd shaped samples are tested while the instrument is raised on one side using collapsible feet to an angle of 10%.

Additional Abrasion Drums

The standard supply scope includes the friability (also known as “Roche”) drums, but abrasion drums are available as options. The standard friability drum causes the samples to roll and fall during the test while the abrasion drum continuously puts the sample under stress by contact with lamellas.

**Principle of Operation**

The PTF E instrument operates at a fixed speed setting of 25 drum rotations per minute and is available with either one drum (PTF 10E) or two drum (PTF 20E). Clean the samples from any dust prior to the test. Weigh the samples and introduce them into any drum of the instrument. Program the test information, such as speed, time etc. and start the run. When the test is finished the drum revolution stops and the samples have to be discharged. De-dust the samples using a brush and weigh them again. The maximum mean weight loss from 3 consequent tests should not exceed 1%.

Advantages

Some of the highlights the PTF E friability testing instruments offer are:

- » LED display showing actual and target settings
- » GLP compliant stainless steel housing
- » Dual operation mode adjustment; number of revolutions or rotation time
- » Easy to operate and set-up

Features

The main features of the PTF E/ER friability testing instruments are:

- » 1 or 2 friability drums made from Plexiglas (optional incl. anti-static coating), in compliance with the USP, EP and DAB pharmacopoeia
- » LED display informing of adjusted rotation speed and operating time (or number of revolutions)
- » Programmable number of drum revolutions or rotating time
- » All IQ, OQ, DQ/QC documentation included in the standard supply scope



Standard Scope of Supply

The PTF E friability testing instrument comes ready to use with the following standard scope of supply:

- » PTF 10E includes one friability drum as per USP <1216> and EP <2.9.7> monograph
- » PTF 20E includes two friability drums, one on the right and one in the left side of the instrument
- » Comprehensive documentation folder including:
 - » User manual
 - » DQ/QC instrument compliance test certificate
 - » User manual
 - » QC/DQ testing certificate
 - » IQ documentation
 - » OQ documentation
 - » Conformity declaration
 - » CE/EMC declaration
 - » Instrument logbook

Options

In addition to the standard scope of supply Pharma Test offers a broad range of accessories and options including:

- » 10° feet to test tablets > 650mg or odd shaped samples
- » Tablet abrasion drum with lamellas
- » Friability drums with anti-static coating
- » Certified equipment for instrument functional (operational) qualification

Technical Specifications

Parameter	Specification
Display	LED Display
Data Entry	Functional Keys
Setting number of revolutions	1 to 9999
Setting rotation timer	1 to 9999 seconds
Drum rotation speed	Fixed to 25 rpm
PTF 10E/20E	Accuracy ± 1 rpm
Bench Space Requirement	W 350.0 x D 400.0 mm
Certification	All components certified to USP / EP requirements
CE / EMC Certification	All CE / EMC Certification provided
Validation	All IQ & OQ documents included

We reserve the right to make technical changes without any prior notice.