

a measurable difference...



Gelbo Flex Tester with Particle Counter

Model: G0005

The Particle Counter for use with the Gelbo Flex Tester is to ascertain the amount of loose fibres (lint) to shed from non-woven materials in a 30 second time period of flexing.

With non-woven textiles joining the traditional lines of product such as plastics, paper, textiles etc. for uses in healthcare and hygiene, cleaning, filtration, food packaging and more, cleanliness is an important consideration; therefore, such materials must have a low propensity to lint.

Using ISO 9073-10, IDM have designed the Gelbo Flex Tester with Particle Counter for measuring the linting of non-wovens in the dry state. This test can also be applied to other textile materials. While the sample is being subjected to repetitive twisting and compression cycles on the Gelbo Flex Tester, air is withdrawn from the testing chamber and the particles in the air stream are counted and classified on the particle counter.



The **Gelbo Flex Tester with Particle Counter** consists of two 82.8mm diameter mandrels, one fixed and the other attached to a moveable arm to perform the flexing action. The moveable mandrel twists and compresses the sample at 60 cycles per min of 180° rotation over 120mm of stroke toward and away from the fixed mandrel.

The **Flexing Chamber and Air Collector** measuring 300 x 300 x 300 mm is made from plexiglass and has removable panels for cleaning. Three panels have two suitable 10mm air vents. An isokinetic intake probe (air collector) is fixed to the centre of the flexing chamber. A Purge Filter is fitted to the instrument and is used to reduce the amount of airborne dust/lint within the flexing chamber throughout testing.

The **Particle Counter** counts and sorts the particles in real time with relevance to sizing from 0.3 to 25.0µm OR 0.5 to 25.0µm. The counter will simultaneously monitor up to 6 environmental sensors such as temperature, humidity, air velocity or differential pressure. These are recorded whilst measuring particles – providing a complete clean room environmental monitoring package.

It has a flow rate of 1CFM (28.3 LPM) and is able to store up to 3,000 data sets, including particle and environmental data, plus location time etc. It also prints reports on a built in thermal printer. Optional RS-232 or 4 x 20mA outputs are available.

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Gelbo Flex Tester with Particle Counter

Application:

- Non-wovens
- Wovens
- Textiles

Features:

- Gelbo Flex Tester
- Flexing Chamber and Air Collector
- Stainless Steel cutting template: 285mm x 220mm
- Sample Mounting Fixture
- Particle Counter

Standards:

- ISO 9073-10
- INDA IST 160.1
- DIN EN 13795-2
- YY/T 0506.4

Options:

- Particle Counter (*Please specify sizing range when ordering*)
3100+ C6: 0.3, 0.5, 1.0, 5.0, 10.0, 25.0µm OR
5100+ C6: 0.5, 1.0, 3.0, 5.0, 10.0, 25.0µm OR
3100+ C8: 0.3, 0.5, 0.7, 1.0, 3.0, 5.0, 10.0, 25.0µm OR
5100+ C8: 0.5, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0, 25.0µm

Connections:

- **Electrical:**
 - **Gelbo Flex Tester:** 220/240 VAC @ 50 HZ or
110 VAC @ 60 HZ
(*please specify when ordering*)
 - **Particle Counter:** 85 - 264 VAC @ 50/60 HZ

Dimensions:

Gelbo Flex Tester:

- **H:** 300mm • **W:** 1,100mm • **D:** 350mm • **Weight:** 45kg

Particle Counter:

- **H:** 290mm • **W:** 270mm • **D:** 230mm • **Weight:** 6kg



Particle Counter



* **EXAMPLE** *
Sample being
tested

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