

Melt Flow Indexer Technical Specifications



1. Melt Flow Rate Tester Advantages

- The heating barrel is made of 304 stainless steel or alloy. Since the melt flow rate tester operates at high temperatures for long periods (up to 400 °C), metal materials are prone to oxidation and rusting under such conditions.
- Dual-sensor configuration ensures precise temperature control, a more stable temperature gradient, and longer service life.
- In accordance with national standards, a 4-minute countdown function is added after material loading.
- After power-on, the instrument can directly display the previous test conditions, avoiding the need for users to reset test parameters each time and reducing operator workload.
- Maximum temperature can reach 400 ° C.
- Capable of long-duration testing of highly corrosive plastics without loss of instrument accuracy, such as full-series fluoroplastics (due to the special nature of the materials, please specify when ordering).
- The SISCO melt flow rate tester complies with the following standards: ISO 1133, ASTM D1238, GB/T 3682.

2. Product Description:

This melt flow rate tester is an upgraded model with numerous enhanced functions. It offers significant improvements in instrument configuration, service life, ease of operation, and test accuracy. Compared with conventional melt flow rate testers, it provides unmatched advantages and superior cost performance.

Standards

ISO 1133, ASTM D1238, GB/T 3682

Applications

The melt flow rate tester is used to determine the melt flow rate (MFR) of various plastics and resins in a viscous flow state. It is suitable not only for engineering plastics with higher melting temperatures, such as polycarbonate, polyarylsulfone, fluoroplastics, and nylon, but also for plastics with lower melting temperatures, including polyethylene (PE), polystyrene (PS), polypropylene (PP), ABS resin, polyoxymethylene (POM), and polycarbonate (PC). It is widely used in plastic production, plastic products manufacturing, petrochemical industries, as well as in universities, research institutes, and quality inspection authorities.

The melt flow rate tester features a benchtop structure with a rational design, stable and reliable performance, an attractive appearance, and convenient operation. It is equipped with a high-performance, high-precision control instrument offering high sampling accuracy and fast control response. A fuzzy PID algorithm is adopted for constant temperature control.

5. Features:

- Fast heating rate with minimal temperature overshoot.
- High temperature stability and control accuracy.
- Quickly restores constant temperature after material loading.
- Easy calibration and correction of test parameters.
- Supports both manual and automatic cutting test methods.
- Equipped with a micro printer for automatic printing of test results.

6. Technical Parameters

- Extrusion Section
 1. Die outlet diameter: $\Phi 2.095 \pm 0.005$ mm
 2. Die outlet length: 8.000 ± 0.025 mm
 3. Barrel (charging cylinder) diameter: $\Phi 9.550 \pm 0.025$ mm
 4. Barrel length: 152 ± 0.1 mm
 5. Piston head diameter: 9.475 ± 0.015 mm
 6. Piston head length: 6.350 ± 0.100 mm
- Standard Test Loads
- Temperature Range: Ambient temperature to 300 °C
- Temperature Stability (Accuracy): ± 0.5 °C
- Display Resolution: 0.1 °C
- Cutting Method: Manual or automatic cutting (optional)
- Temperature Recovery Time: Less than 4 minutes
- Printing: Automatic output via micro printer
- Power Supply: AC 220 V $\pm 10\%$, 50 Hz

7. Accessories List

No.	Accessory Name	Unit	Quantity
1	Weights	Set	1
2	Weight Tray	pc	1
3	Charging Funnel	pc	1
4	Die Cleaning Rod	pc	1
5	Charging Rod	pc	1
6	Barrel Cleaning Rod	pc	1
7	Piston Rod	pc	1
8	Die	pc	1