

## Melt Flow Rate Instrument



### **Product Summary:**

EI-1706C Melt flow rate instrument meets GB/T3682-2000, ASTM D1238-98 and in the light of JB/T5456, ISO 1133, similar to the standard design and manufacturing for the determination of thermoplastic melt flow rate (MFR) and melt volume flow rate (MVR) equipment. Determination of the melt flow rate using automatic sampling, weighing scales; determination of the melt volume flow rate through the displacement sensor and automatic timing system. The final results of the two methods are displayed in the LCD screen on the instrument by the micro-form printer output. The instrument measurement data accuracy, simple operation, intuitive and clear, stable and reliable performance. It is suitable for high melting temperature of polycarbonate (PC), nylon and engineering plastics such as polyethylene (PE), polypropylene (PP), polyoxymethylene (POM), polystyrene (PS), ABS resin, polycarbonatea lower melting temperature plastics such determination.

### **Work Principle:**

The melt flow rate instrument is an extruded plastic measuring instrument. It is the analyte to reach the molten state under specified temperature conditions, high temperature furnace. This analyte in the molten state under the provisions of the weight of the load of gravity, through the holes of a certain diameter (ie. Die) extrusion test.

The melt flow rate refers to the quality or volume of thermoplastics in a certain temperature and pressure every 10min through a standard die. The former is called a melt flow rate (mass, abbreviation MFR), unit: g / 10min. The latter is known as the melt volume flow rate (volume, the English abbreviation for MVR), Unit: cc/10min.

Melt flow rate is not basic properties of the polymer, the only characterization of polymer melt flow properties. By its measurement, we can understand the polymer molecular weight distribution, degree of cross linking, and processing performance. The instrument consists of a furnace and temperature control system, and is installed in the column and base. SCM tune power temperature thermostat part of its anti-interference ability, high precision temperature control, control and stability, and furnace heating sets according to certain laws secured to the heating rods, so that the temperature gradient small to meet the standard requirements.

**Applicable Industry:**

Melt flow rate instrument widely used in the production of plastics, plastic products, petroleum and chemical industry and the universities, research institutes, commodity inspection departments.

**Meet the Standards:**

GB/T3682-2000, ASTM D1238-98 JB/T5456, ISO1133

**Main Specifications:**

Model	EI-1706C
<b>Squeeze out some material</b>	
Discharge port diameter	Ø2.095±0.005mm
Discharge port length	8.000±0.025mm
Loaded barrel diameter	Ø9.550±0.025mm
Loaded barrel length	152±0.1mm
Piston head diameter	Ø9.475 ±0.015mm
Piston head length	6.350±0.100mm
<b>Standard load of test (eight class):</b>	
A	0.325kg = (Piston rod +weight tray + insulation sleeve + No.1 weight body) = 3.187N
B	1.200 kg = (0.325 + No.2 weight 0.875) = 11.77 N
C	2.160 kg = (0.325 + No.3 weight 1.835) = 21.18 N
D	3.800 kg = (0.325 + No.4 weight 3.475) = 37.26 N
E	5.000 kg = (0.325 + No.5 weight 4.675) = 49.03 N
F	10.000 kg = (0.325 + No.5 weight 4.675 + No.6 weight 5.000) = 98.07 N
G	12.500 kg = (0.325 + No.5 weight 4.675 + No.6 weight 5.000 + No.7 weight 2.500) = 122.58 N
H	21.600 kg=(0.325+No.2 weight 0.875+No.3 weight 1.835+No.4 weight 3.475+No.5 weight 4.675+No.6 weight 5.000+No.7 weight 2.500+No.8 weight 2.915)=211.82 N
Relative error of test load≤0.5%	
Temperature range	50 ~ 450°C

# ECO INSTRUMENT (NS0081046-M)

Temperature accuracy	±0.2°C
Temperature resolution	0.1°C
Display	LCD
Print	Equipped with a printer, can print test report
Working environment	Ambient temperature: 10°C ~ 40°C, relative humidity: 30% ~ 80% RH, Non-corrosive media on surrounding, properly installed and adjusted to the level on a solid foundation. No-strong air convection; around no vibration, no strong magnetic interference.
Dimensions	250 (L) x 350 (W) x 510(H) mm
Weight	Host weight : Approx: 25kg Weight: 21.6kg
<b>Standard Accessories:</b>	
Weight	1 set (Totally 8 pieces – No. 1 weight combination included in grade 1)
Level	1 piece
Die	1 piece
Mount stick a mold clean-up	1 piece
Barrel cleaning rod	1 piece (Combination)
Material Loading rod	1 piece (Combination)
Fees Hopper	1 piece
Sample plate	1 piece
Power cord	1 piece
Operation manual	1 piece