

KASON-XNR-400EA Full Automatic Melt Flow Indexer (MFR & MVR)



A. Product description

It is used to determine the MFR&MVR value of the melt flow rate through the standard die every 10 minutes when various plastics and gums pass through a certain temperature and load in a viscous flow state. It is suitable for melting high temperature polycarbonate, polysulfoxide, fluorine plastics, nylon and other engineering plastics. Also, it is appropriate for the polyformaldehyde, polystyrene, polypropylene, ABS resin polyformaldehyde, polycarbonate resin and other low temperature plastic melting test. The machine is widely used in plastic production, plastic products, petrochemical and other industries as well as related universities, scientific research units and commodity inspection departments.

B. Test standards

- GB-T3682-2018 Determination of melt flow rate and melt volume flow rate for thermoplastics
- ISO1133: 1997 Determination of melt mass flow rate MFR and melt volume flow rate MVR for thermoplastics
- ASTM D1238 Standard test method for determination of flow rate of thermoplastics melt by extruded plastimeters

C. Product advantages:

1. The heating cylinder is made up of 304 stainless steel or alloy, for the reason that in high temperature metal

material is easily oxidation rust while the melting flow index tester usually performs long-time work at high temperature(up to 400~500 degrees).

2. The melting flow index rate instrument is equipped with dual sensor configuration to get precise temperature control and better temperature gradient so that the instrument can work longer.
3. According to the national standard, function that four minute countdown after feeding is added in the machine.
4. The RS232 interface is available to be connected to the computer to output data(optional).
5. The last test conditions can be directly displayed after boot-strap to avoid users resetting test parameters each time ,reducing the workload of the operators.
6. The maximum temperature can be up to 450~500°C。 (optional, special instructions when ordering) .
7. After long time test of strong corrosive plastic such as full fluorine plastic, the accuracy of the instrument is non-destructive.
8. Meeting standards: ISO 1133, ASTM D1238, GB/T3682

D. Product usage:


This kind of instrument can be used to test the melt flow rate(MFR) figures of all kinds of plastic and resin in the viscous flow state. It is not only suitable for the high melting temperature engineering plastics of polycarbonate, polyarylsulfone , fluorine plastic and nylon but also suitable for some other low temperature plastic products which are made up of polyethylene(PE), polystyrene(PS), polypropylene(PP), ABS resin, polyoxymethylene(POM) and polycarbonate. So it is not only widely used in the plastic production, petroleum and chemical industry but also in the relevant institutions such as scientific research units and the community inspection departments.

The melt flow rate instrument is suitable for measuring the thermoplastic melt mass flow rate following the determination in the standard "GB/T3682-2000 thermoplastic melt mass and volume flow rate measurement". The standard is equivalent to the requirement in the ISO 1133:1997 and can meet the ASTM D1238 test.

Considering the beautiful appearance and convenient operation ,the desktop structure of the melt flow rate instrument makes the equipment performance reliably and stably. Besides, the high-precision control instrument using fuzzy PID algorithm for temperature control has the feature of high sampling precision and high speed control.

E. Product advantage:

- 1、 Fast heating speed, minimal overshoot
- 2、 High precision of constant temperature
- 3、 A constant temperature can be quickly restored after packing .
- 4、 Test parameter calibration and correction is convenient.
- 5、 Manual and automatic cutting test methods are optional.
- 6、 The instrument is equipped with LCD working platform.
- 7、 The test results are automatically printed putout equipped with a printer.

Item	Automatic melt flow index tester 
Display method	7-inch touch screen + connectable computer software
Heating zone	Multi-stage (2-stage) temperature control method, 2 sets of platinum resistance sensors, 2 heating zone for independent temperature control, high-precision intelligent PID control, the heating slope or heating speed is adjustable, gradient of 0-70mm interval $\pm 1^{\circ}\text{C}$
Test method	MFR+MVR
Temperature curve display	YES
Output method	Micro printer or computer software output report
Die	A standard 2.095mm die
Weight level	level 8 (0.325 kg、 1.2 kg、 2.16 kg、 3.8 kg、 5.0 kg、 10.0 kg、 12.5kg、 21.6k g)
Weight loading method	Automatically Loaded Weights
Cutting method	Manual + automatic cutting
MVR Displacement Accuracy	0.01mm (different measurement intervals can be set to meet the latest international standards)
Cleaning mode	Die manual cleaning + barrel manual cleaning

F. Specifications :

Items	Melt flow index tester
Temperature Range	RT-450°C
Temperature drift	4hour, ≤0.5°C
Display Device	Keystroke controlled
Temperature fluctuation	± 0.2°C
Temperature uniformity of 10mm-70mm above the die	± 1°C
Temperature display resolution	0.1°C
Time display resolution	0.1S
Cutting timing range	1-999S adjustable
Mouth mold diameter	Φ2.095±0.005mm (Mouth Radius : 1.05 mm + 0.005)
Discharge hole length	8.000 ± 0.025mm
Piston rod diameter	9.474 ± 0.007mm
Piston rod length	6.35 ± 0.13mm
Loading container diameter	Φ9.550 ± 0.007mm
Test range	0.1-150g / 10min
Farmar precision	± 0.5%
Displacement measuring encoder	Omron photoelectric rotary encoder
Testing scope of mass method	0.1-150g /10min
Test range by volumetric method	50-5000cm³/10min (It can measure up to 5000 cm³/10min by using the plugging die)
Output way	Micro automatic printout
Blanking way	Hand automatic cutting can be switched
Test farmar (weights)	total 8 grades, 8 sets of weights
Power supply	AC220V±10% 50HZ

G. Accessory

No.	Name	Unit	Quantity	Remark
1	counterweight	Set	1	0.325 kg、1.2 kg、2.16 kg、3.8 kg、5.0 kg、10.0 kg、12.5kg、21.6k g (in a load within)
2	counterweight tray	Set	1	in a load within
3	charging hopper	Set	1	
4	die cleaning load	Set	1	
5	loader bar	Set	1	
6	barrel cleaning load	Set	1	assemblies
7	rod	Set	1	(in a load within)
8	die	Set	1	
9	gauze	Roll	2	
10	printer paper	Roll	2	

H. Illustration



FOCUS IN MATERIAL TEST

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