Melt Flow Indexer

(Test Method : MFR)

Model: XNR-400

Summary:

It is used to determine the melt mass-flow rate (MFR) and adopts auto sampling method and the cut samples are weighed up by balancewhen it is used to determine MFR. Melt flow indexer is suitable for the tests of engineering plastics with higher melt temperature ,such as PC ,FI plastics, nylon ,but also for the plastics with lower melt tempt., such as PE, PP, POM, PS, ABS resin and poly carbonic acid ester, etc. It has wide range of applications in some industries ,such as plastic fabrication, plastic goods, petrochemical industry ; collage and university and science and research institute and commodity inspection department .

Test standards :

GB / t3682-2000: Determination of melt flow rate and melt volume flow rate of thermoplastics

ISO 1133:1997: Determination of melt mass flow rate MFR and melt volume flow rate MVR of thermoplastics

ASTM d1238: Standard Test Method for melt flow rate of thermoplastics by extrusion plastometer

Etc.....

Main Features :

- Chinese and English Color LCD display
- Manual and automatic cutting
- Dual inlet sensor, more accurate temperature gradient, can be used independently, improve service life
- The barrel is nitrided with imported Hastelloy, and the die is made of carbon tungsten steel
- The insulation barrel is made of SUS304 stainless steel, and it will not rust in high temperature for a long time
- Automatically calculate the results and print them out

Test Specifications:

Model	XNR400	XNR400T
Display	LCD	TOUCH SCREEN
Test Method	MELT MASS FLOW RATE (MFR)	
Size of barrel	Diameter: 9.55±0.025mm ; length: 160 mm	
The piston head diameter	9.475±0.01 mm	
Inside diameter of die	2.095 mm; length 8±0.025 mm	
Temperature range	room temperature~450°C	
Temperature display resolution	0.1°C	
Accuracy	±0.2°C	
Measuring range	0~30mm	
Power	220V±10% 50HZ	

Test methods :

Method A: melt mass flow rate (MFR)

In this method, the extrudate is cut in a specified time and the mass of the cut extrudate is weighed on an analytical balance. The test result is the mass of extrusion per unit time, in g/10 min. The quality of the resulting MFR results is related to the cutting time and the accuracy of the stated mass. If the MFR index is low and a longer cutting time is required, we recommend using manual cutting.

Method B: melt volume flow rate (MVR)

This method requires a melt indexer/extrusion plastometer equipped with a piston displacement sensor. The MVR results are obtained by measuring the volume of the extruded material per unit time in cm3/10 min. Calculated from the displacement of the piston in a certain period of time. The significant advantage of this method is the elimination of mechanical cutting. It has the features of simultaneous recording of piston displacement and test time while achieve high accuracy, even for short measurement times and small piston displacements. Depending on the material, accuracy requirements and MVR results, the same bucket can test up to 40 separate measurements.

Standard test load (eight classes) :

1：0.325 kg=（rod +weight tray+lagging+1st body weight）=3.187N

2：1.200 kg=(0.325+2nd 0.875kg weight)=11.77 N

3：2.160 kg=(0.325+3rd 1.835kg weight)=21.18 N

4：3.800 kg=(0.325+4th 3.475kg weight)=37.26 N

5：5.000 kg=(0.325+5th 4.675kg weight)=49.03 N

6：10.000 kg=(0.325+5th 4.675 +6th 5.000kg weight)=98.07 N

7：12.000 kg=(0.325+5th 4.675 +6th 5.000+7th 2.500kg weight)=122.58 N

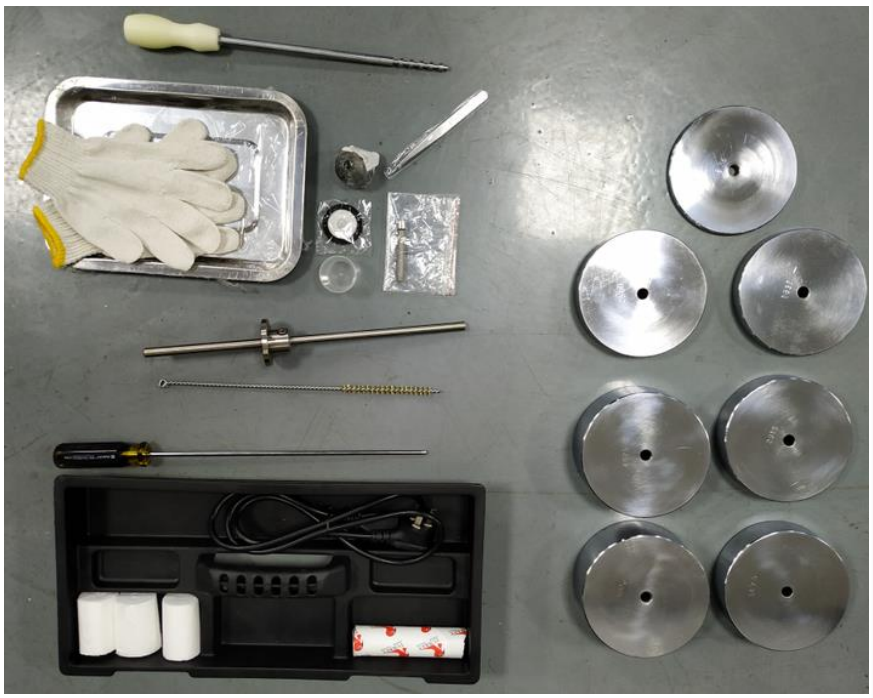
8：21.600 kg=(0.325+2nd 0.875 +3rd 1.835+4th

3.475+5th 4.675+6th 5.000+7th 2.500+8th

2.915kg weight)=211.82 N

Counterbalance mass relative error≤0.5%.

Mainly accessories :



Weights: 8 levels, 0.325 kg, 1.200 kg, 2.160 kg, 3.800 kg, 5.000 kg, 10.000 kg, 12.000 kg, 21.600 kg

Weight tray: 1 piece

Piston rod: 1 piece

Die: 1 piece

Hopper: 1 piece

Loading rod: 1 piece

Barrel cleaning rod: 1 piece

Die cleaning rod: 1 piece

Gauze: 2 rolls

Printing paper: 2 rolls

Real imagines for MFR (digital display and touch screen display)

Model: XNR400, LCD Display

Model : XNR-400T, Touch Screen Display

Other models can be chosen :

Model	Pictute	Test Method	Operate
XNR-400		MFR melt mass flow rate	LCD display Key button
XNR-400T		MFR melt mass flow rate	Touch screen
XNR-400B		MFR+MVR melt volume flow rate	LCD display Key button
XNR-400L		MFR+MVR melt mass flow rate melt volume flow rate	Touch screen Connect PC for Data Reading
XNR-400EM		MFR+MVR melt mass flow rate melt volume flow rate	Touch screen Connect PC for Data Reading Electric loading weight
XNR-400AM		MFR+MVR melt mass flow rate melt volume flow rate	Touch screen + computer controlled Automatic add weights Automatic clean test hole

Professional packing

We have professional packaging teams and shipping forwarder to pack and deliver your products safely!

- ❖ Out packing: Standard export wooden case.
- ❖ Inner packing: With careful stretch film wrap products, hard wood board + strong bandage to fix corners.
- ❖ Checking teams: Specialized staff to inspect and classified your goods.

What we produce？ (always accept customize)

1. Universal tensile testers
2. Hardness testers
3. Environmental chambers
4. Electronic products testers
5. Paper&package testers
6. Abrasion resistance testers
7. Sponge/metal testers
8. Color/safety testers
9. Rubber/plastic testers
10. Fabric/leather testers
11. Wire/shoes testers
12. Other testers