Melt Flow Indexer MFI-3322



Jinjian introduces an innovative multi-weight instrument for the determination of polymers' melt index.

MFI definition

The Melt Flow Indexer is related to the melted material viscosity. It allows the operator to make an estimation of " mean molecular weight", at the same time giving an indication of melt "flow ability" through a die.

The Melt index is defined as the weight or the volume of melted material flowing through a calibrated die, under the effect of a pre-determined force, at constant temperature and for the total time of 10 minutes

International reference standards and related methods

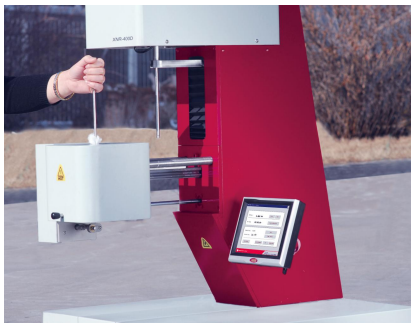
- ISO 1133, ASTM D1238
- Method A: gravimetric / MFR (Melt Flow Rate)
- Method B: volumetric / MVR (Melt Volume Rate)

Main technical features:

- Movable oven for easy cleaning and inspection
- PC software for results acquisition, saving, Export and printing of test parameters and results
- Measurement range: 1.0g-100g/10min(MFR) and 0.01-350cm3/10min(MVR)

Temperature:

- Temperature working range: 120°C to 450 °C
- Temperature rising time: ＜30min
- Temperature fluctuation: ± 0.5 °C
- Temperature display error: ≤± 0.2 °C
- Temperature recovery time: ＜4min
- Accuracy of timer:0.1s
- Cut-off time interval: 1-180000s



Displacement:

- Encoder for piston displacement detection (MVR) (Movable oven)
- MVR measurement accuracy: ±0.03%F.S
- Piston displacement accuracy: 0.02 mm
- Piston displacement resolution: 0.005 mm

Weights:

- Automatic application of the selected testing weights
- On board multi-weight system including following weights:
  0.325 / 1.200 / 2.160 / 3.80 / 5.00 / 10.00 / 21.60 Kg
- Accuracy of weight: ± 0.5%

Power supply:

- Electric supply: （220-15％～220+10％ ）VAC 50Hz 800W

Dimension/weight:

- Dimensions: 690×630×1500 mm (height)

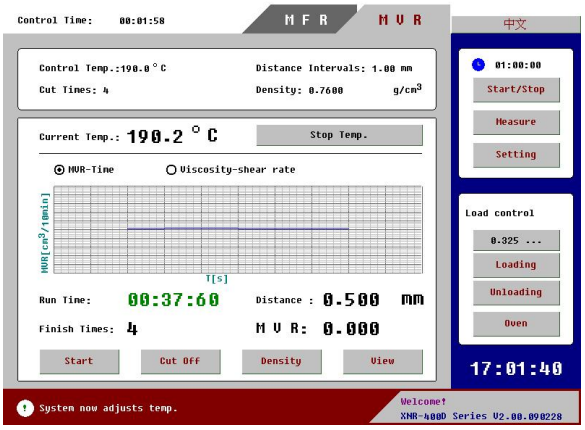
A user friendly instrument with innovative specifications

Integrated automated Multi-weight system

Built in weights (all weights confirm to International standards). The weight or the weights (max. 4) are automatically selected by a simple touch of the operator on the screen. In case of multi-weight testing the choice can be for incremental or decremental testing. No manual weight handling is required.

User interface

The basic instrument has a wide color touch screen for a simple and fast input of the test parameters, visualization of test execution and final results. The instrument can be connected to a PC through a RS232 port for direct acquisition of the test parameters and test results which can be directly saved or exported with the SW included in the supply. The software package provided with the instrument does not require any license.



The multi-weight test (up to 4 weights during the same test in an increasing or decreasing mode) allows for calculation of the following results:

- FFR (MFR ratio with different weights)
- Shear Stress
- Shear Rate
- Apparent viscosity
- Diagram MFR vs. Time
- Diagram MVR vs. Time