



Melt Flow Index Tester

Available Variants

1. Melt Flow Index Tester – Manual Sample Cutting – Manual Sample Weighing – ASTM D1238

- Manual sample cutting
- Manual sample weighing
- Manual calculation of results
- Method A

2. Melt Flow Index Tester – Motorized Auto Sample Cutting – Manual Sample Weighing & Calculation – ASTM D1238 – Method A & C

- Automatic motorized sample cutting
- Manual sample weighing
- Manual calculation of results
- Stepper motor with programmable controller for auto cutting function
- Method A & C

3. Melt Flow Index Tester – Auto Sample Cutting – Auto Sample Weighing – Auto MFR Calculation – ASTM D1238 – Method A & C

- Motorized auto sample cutting
- Auto sample weighing
- In-built digital weighing balance with accuracy of 0.01 grams
- Auto MFR calculation
- Window-based software
- RS-485 port to interface with computer
- Method A & C

4. Melt Flow Index Tester – Fully Automatic With HMI & PLC System – ASTM D1238 – Method A, B & C

- Auto cutting
- Auto weighing
- Auto loading of weights from 2.16 to 21.6 kg
- Auto MFR & MVR calculation

Corporate Office:

A-1301, BVR Ek, Opp. Hotel Inder Residency,
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Calibration Laboratory:

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GST TIN No. : 24AABCE4018L1ZU
IT. PAN No. : AABCE 4018L
IEC No. : 0813026598 Dt. 04/03/2014
CIN No. : U29199GJ2004PTC045078
TAN No. : AHME00572F



- Highly advanced and intelligent HMI & PLC system
- Direct report printing through thermal printer
- Dedicated PC software available at extra cost
- Method A, B & C
- Piston travel length measurement by LVDT sensor, range up to 110 mm and accuracy of 0.01 mm
- Automatic weight loading system

Compliance With International Standards

- ASTM D1238
- IS 2530 – Method A

Applications

Melt Flow Indexer is used to measure the flow rate of different polymers. The reported Melt Index values help to distinguish between different grades of polymers. This is due to the fact that plastic materials are seldom manufactured without incorporating additives, which affect the processing characteristics of material like stability and flow ability.

The Melt Flow Index Test measures the rate of extrusion of a thermoplastic material through an orifice of specific length and diameter under prescribed conditions of temperature and pressure.

Technical Specifications

Specification	Details
Temperature Controller	Microprocessor based Digital Temperature Controller; Microcontroller based PID Temperature Controller
Temperature Range	0 to 400 °C
Temperature Resolution	Up to 0.1 °C
Temperature Accuracy	±0.1% F.S.D.; ±0.1°C
Timer	Microprocessor based Digital Timer
Timer Range	0–999.9 Seconds with preset facility and buzzer output

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Specification	Details
Dead Weights	1.2 kg, 2.16 kg, 3.8 kg, 5 kg and 21.6 kg chrome/hard chrome plated weights; other weights at extra cost
Sample Cutting	Manual Type; Automatic Motorized Sample Cutting
Weight Lifting	Manual
Sample Weighing	Manually with external electronic balance; Automatic with in-built electronic balance
Weighing Balance Accuracy	0.01 grams
MFI Range	Up to 20 g/10 min
Exterior Body	Fabricated from Mild Steel Material
Exterior Body Paint	Powder coated in attractive shades
Model	Table Top Model; Bench Top Model
Power Supply	230 Volt, 50 Hz, Single Phase, AC Supply; 220 V AC / 50 Hz, Single Phase (or as per requirement)
Current	4 Amps
Dimensions	17" x 17" x 25" (W x D x H)
Weight	45 kg; 65 kg
Motor	Stepper motor with programmable controller for auto cutting function
Accessories Supplied	Orifice, Piston, Material Charger, Barrel Cleaner, Orifice Cleaner, Sample Cutter
Additional Accessories	Linear, Mirror, Tweezers
Software	Window-based software; Dedicated PC software available at extra cost
Communication	RS-485 Port to interface with computer

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Specification	Details
Display & Data Access	Scrolling display for individual results and average MFI value on completion of test
Data Transfer	Data can be transferred to PC in Excel format on completion of test
Report Printing	Direct print of report on thermal printer; report printing through dedicated PC software
HMI & PLC	Highly advanced and intelligent HMI & PLC system for MFI test
Programmable Parameters	Product specification, density of product, operator details, date & time of test etc.
LVDT Sensor	Piston travel length measurement with range up to 110 mm and accuracy of 0.01 mm
Weight Loading	Auto loading of weights from 2.16 to 21.6 kg
PC Requirement	Personal Computer with USB Interface & Serial Interface COM Port (COM1 or COM2); PC with CD ROM & Serial Interface COM Port (COM1 or COM2)
Test Methods	Method A, B & C; source also specifies Method A, D, B, E, F, N and Method G, I / E, M / O for specified additional weights and materials

Additional Weight Requirements As Per ASTM D1238

Required Weight	Material	Method
325 gm	HDPE, LDPE, LLDPE	A, D, B, E, F, N
21.6 kg, 10.0 kg	HDPE, LDPE, LLDPE	A, D, B, E, F, N
3.80 kg	ABS	G, I
1.050 kg	POM (Acetal)	E, M
1.200 kg	PC	O

Note: Extra weights are available as per details given in ASTM D1238. Other weights are available at extra cost.

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