

MF50

Melt Flow Tester



The ability of melted materials to flow under pressure at set temperatures has a fundamental importance in polymer science and technology. The MF50 is especially used by 24/7 laboratories testing several different materials, from fast flowing master batches up to highly viscous rubbery or filled materials, where quick and safe operations have big impact on productivity. It allows multi-weight testing procedures.

STANDARD FEATURES

- On-board Touch-Screen interface for method setting and visualization of results
- High-Precision Encoder to measure MVR, up to 50 data points acquisition for a single test
- Lifter for automatic and accurate test mass application
- Integrated mass selector with automatic selection of the weights
- Load Cell for compacting and purging with a controlled force
- Quick-release slide system for the die removal
- Guided piston design for its accurate positioning into the barrel
- Integrated support for accessories and consumables
- Abrasion resistant barrel

OPTIONS

- Die plugging device to prevent material flowing during pre-heating
- Go/No-Go gauges for die tolerance check
- Nitrogen blanket device for hygroscopic materials testing
- Manual or motorized extrudate cutting device
- Integrated device for automatic barrel cleaning
- Automatic mechanical piston holding device for high-flow sample
- Software for storage and analysis of results with graphical capabilities

USEFUL SPECIFICATIONS

Ranging from simple manual testers to semi-automated testing systems performing multiple weight tests, Instron's Melt Flow Testers are specifically designed for easy and accurate measuring of Melt Flow Rate (MFR) and Melt Volume Rate (MVR) according to ISO 1133-1/2 and ASTM D1238 international standards.

| | | |
|--|-----------|---|
| Type of Test | | Single and Multi-Weight |
| Test Temperature Range | °C °F | 30 to 400 (Optional 500) 86 to 752 (Optional 932) |
| Temperature Accuracy and Stability | | ISO 1133-2 (Exceeds ISO 1133-1), ASTM D1238 |
| Barrel Material | | Nitrided Steel with Superior Wear Resistance (Option: Nickel Alloy for Chemical Resistance) |
| Load Cell Compacting and Purging Force | N | up to 750 |
| Weight-Lifter Positioning | mm | N/C controlled, resolution 0.026 |
| User Interface | | 6.5" colour touch screen (Option: CEAST VisualMELT Software on External PC) |
| Basic Machine Dimensions (w x d x h) | mm in | 840 x 645 x 1550 32 x 25 x 61 |
| Basic Machine Weight | kg lbs | 150 132 |
| Electrical Supply | V Hz | 115 or 320 50/60 |
| Power Consumption | | Max. 1000 W (Including Options) |
| Available Test Masses | kg lbs | From 0.325 (piston) to 21.6 From 0.716 (piston) to 47.6 |
| Included with the Machine | | Hardened steel piston, one tungsten carbide die, spoon for sample loading, die and barrel cleaning tools, cleaning cream and cotton strips, CE certificate, conformity certificates for piston, die and barrel. |

PROTECT YOUR INVESTMENT

Preventative maintenance and accredited verification of your Melt Flow Testers help avoid potential risk exposure from inaccurate test results that can affect the quality of your product to market, extend the life of your investment, minimize the cost of ownership and downtime.

Performance verification, maintenance, adjustment to manufacturing specifications and NVLAP accredited verifications in compliance with ISO and ASTM standards are among Instron Professional Services helping to ensure that testing systems are operating at peak performance.

www.instron.com



Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646

Instron is a registered trademark of Illinois Tool Works Inc. (ITW). Other names, logos, icons and marks identifying Instron products and services referenced herein are trademarks of ITW and may not be used without the prior written permission of ITW. Other product and company names listed are trademarks or trade names of their respective companies. Copyright © 2023 Illinois Tool Works Inc. All rights reserved. All of the specifications shown in this document are subject to change without notice.