

Melt Flow Indexer

Model: M0004

a measurable difference...

IDM[®]

instruments

The Melt Flow Indexer is a dead-weight extrusion plastometer. It consists of a thermostatically controlled melting chamber (the barrel) in which the polymer under test is heated and from which it is extruded through a standard die under standard conditions of load, which is, of course, made up of the combined weights of the extrusion piston and the loose weight both of which are carefully calibrated to well within the most stringent limits.

Applications:

- Plastics

Standards:

- BS2782
- ASTM D1238: Procedure A
- ISO 1133

Features:

- **Barrel:** Precision ground and honed. Manufactured from high grade tool steel for longer life.
50.8 mm outside diameter
9.55 mm inside diameter
162 mm long
- **Temperature:** The temperature of the barrel is controlled by the Precision Digital Temperature Controller.
Temperature Range: 100° - 300°C, ± 0.2°C.
100° - 400°C, ± 0.2°C.
- **Piston:**
Diameter: 9.47 mm
Weight - 100 gm.
- **Piston Weights:**
4.9 Kg weight (1)
2.06 Kg weight (1)
- **Sample Cut Off Knife (1)**
- **Die Remover (1)**
- **Die Cleaner (1)**
- **Cleaning Tool (1)**
- **Filler Tool (1)**
- **Level (1)**

Working Environment:

- **Operating Temperature:** -10°C to 55°C
(with no condensation or icing)
- **Operating Humidity:** 25% to 65%
- **Storage Temperature:** -25°C to 65°C
(with no condensation or icing)



Optional:

- **Die:** Tungsten Carbide:
8 mm long
9.5504 mm overall diameter
2.0955 mm internal diameter
The alternative Standard die in BS 2782 method 1050 with a bore diameter of 1.181 mm is also available on request.
- **Piston:**
Diameter: 9.47 mm
Weight - 100 gm
- **Calibration Certificate**
- **Spare Die**



Connections:

- **Electrical:** 220/240 VAC @ 50 HZ or 110 VAC @ 60 HZ
(please specify when ordering)

Dimensions:

- **H:** 480mm
- **W:** 430mm
- **D:** 270mm
- **Weight:** 27kg

Procedural Conditions:

Material	Condition	
Acetals (copolymer and homopolymer)	190/2.16	190/1.05
Acrylics	230/1.2	230/3.8
Acrylonitrile-butadiene-styrene	200/5.0	230/3.8
	220/10	
Acrylonitrile/butadiene/styrene/polycarbonate blends	230/3.8	250/1.2
	265/3.8	265/5.0
Cellulose esters	190/0.325	190/2.16
	190/21.60	210/2.16
Ethylene-chlorotrifluoroethylene copolymer	271.5/2.16	
Ethylene-tetrafluoroethylene copolymer	297/5.0	
Nylon	275/0.325	235/1.0
	235/2.16	235/5.0
	275/5.0	
Perfluoro (ethylene-propylene) copolymer	372/2.16	
Perfluoroalkoxyalkane	372/5.0	
Polycaprolactone	125/2.16	80/2.16
Polychlorotrifluoroethylene	265/12.5	
Polyethylene	125/0.325	125/2.16
	250/1.2	
	190/0.325	190/2.16
	190/21.60	190/10
	310/12.5	
Polycarbonate	300/1.2	
Polymonochlorotrifluoroethylene	265/21.6	
	265/31.6	
Polypropylene	230/2.16	
Polystyrene	200/5.0	230/1.2
	230/3.8	190/5.0
Polyterephthalate	250/2.16	210/2.16
	285/2.16	
Poly (vinyl acetal)	150/21.6	
Poly (vinylidene fluoride)	230/21.6	
	230/5.0	
Poly (phenylene sulfide)	315/5.0	
Styrene acrylonitrile	220/10	230/10
	230/3.8	
Styrenic Thermoplastic Elastomer	190/2.16	200/5.0
Thermoplastic Elastomer-Ether-Ester	190/2.16	220/2.16
	230/2.16	240/2.16
		250/2.16
Thermoplastic Elastomers (TEO)	230/2.16	
Vinylidene fluoride copolymers	230/21.6	
	230/5.0	

These conditions have been found satisfactory for the materials listed