TECHNICAL DATA SHEET

Polytevo Series Melt Flow Indexer

Melt flow indexer (MFR, MVR) · 0.1–150 g/10 min and 50–5000 cm³/10 min · 8 load levels · ACS-5005 / 5005A / 5005SA



Polytevo Series Melt Flow Indexer (ACS-5005 series) — representative configuration

The Polytevo Series Melt Flow Indexer (ACS-5005, ACS-5005A, ACS-5005SA) determines MFR and MVR of plastics and resins. Image shown for reference; final configuration is confirmed in the quotation.

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ACS MATERIAL, LLC

959 E Walnut St., Suite 100

Pasadena, CA 91106, USA

Phone +1 (866) 227-0656

Fax +1 (781) 518-0284

contact@acsmaterial.com

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SECTION I

Product Overview

Polytevo Series Melt Flow Indexer (ACS-5005, ACS-5005A and ACS-5005SA) are melt flow indexers for MFR (mass method) and MVR (volume method), with a test range of 0.1–150 g/10 min (MFR) and 50–5000 cm^3/10 min (MVR), 8 load levels and a built-in micro printer.

The ACS-5005 series determines the melt mass-flow rate (MFR) and melt volume-flow rate (MVR) of plastics and resins in the viscous flow state at a set temperature and load. The ACS-5005 is the standard configuration with a touch-screen controller; the ACS-5005A is the automatic configuration; the ACS-5005SA adds motorized lifting and lowering of the load weights. They are used in plastic production and plastic products, petrochemical industries, universities, research units and inspection departments.

SECTION II

Core Advantages

— **Mass and volume methods** Test by mass (MFR) or by volume (MVR); the ACS-5005A and ACS-5005SA can run both methods at the same time and calculate the flow-rate ratio.

— **8 load levels** Eight sets of weights, from 0.325 kg to 21.6 kg, with a weight accuracy of ±0.5%.

— **Touch-screen operation** The ACS-5005SA has a 7-inch screen. The ACS-5005A and ACS-5005SA can store and print the latest test conditions and data.

— **Preheating countdown and alarms** ACS-5005A and ACS-5005SA: temperature stability alarm and a 240-second preheating countdown; the preheating time can also be set for ASTM and other methods.

— **Wide test range** 0.1–150 g/10 min by the mass method and 50–5000 cm^3/10 min by the volume method.

— **Independent upper and lower temperature control** Upper and lower sections of the ACS-5005 and ACS-5005SA are temperature controlled independently with platinum resistance sensors.

— **Built-in micro printer** Prints the test data.

— **Computer connection** ACS-5005A and ACS-5005SA: RS232 or USB interface reserved to control the instrument and save test data on a computer.

SECTION III

Specifications

Technical data — ACS-5005, ACS-5005A and ACS-5005SA

Specifications	
Parameter	**Specification**
Brand	Polytevo Series by ACS Material
Product Name	Polytevo Series Melt Flow Indexer
Models	ACS-5005 / ACS-5005A / ACS-5005SA
SKU #	ERP7MFI1 / ERP7MFI2 / ERP7MFI3
Product type	Melt flow indexer (MFR, MVR)
Test range	Mass method: 0.1–150 g/10 min; volume method: 50–5000 cm^3/10 min
Temperature display resolution	0.1°C
Time display resolution	0.1 s
Discharge port length	8.000 ± 0.025 mm
Charging cylinder diameter	Ø9.550 ± 0.025 mm
Weight accuracy	±0.5%
Test load	8 levels, 8 sets of weights (0.325 kg to 21.6 kg)
Output mode	Micro automatic print output
Power supply	AC 220 V ±10%, 50 Hz
Test method reference	ISO 1133; ASTM D1238

Model comparison — ACS-5005 / ACS-5005A / ACS-5005SA

Model comparison			
Parameter	**ACS-5005**	**ACS-5005A**	**ACS-5005SA**
SKU #	ERP7MFI1	ERP7MFI2	ERP7MFI3
Configuration	Standard	Automatic	Motorized weight lifting
Temperature range	RT to 450℃	Confirmed on quotation	RT to 450℃
Temperature fluctuation	±0.5℃	±0.5℃	Confirmed on quotation
Temperature uniformity	±1℃	±1℃	±1℃
Test methods	Mass (MFR) and volume (MVR)	Mass, volume, or both at once with flow-rate ratio	Mass, volume, or both at once with flow-rate ratio
Temperature control	Dual control: upper and lower sections independent	Confirmed on quotation	Two-stage: 2 platinum sensors and 2 heating sleeves, PID
Displacement sensor specification	Accuracy: 0.01 mm	Confirmed on quotation	Resolution: 0.01 mm
Touch screen	Color touch screen controller	Confirmed on quotation	7-inch touch screen
Weight loading	—	Automatic (mechanism confirmed on quotation)	Manual, or stepper motor with ball screw raising and lowering the weight
Cutting	Manual / automatic cutting	Manual / automatic cutting; time and times settable 0–999	Manual / automatic cutting; time and times settable 0–999
Over-temperature protection	—	Yes	Yes
Computer interface	—	RS232 or USB reserved	RS232 or USB reserved

Scope of delivery

— **Standard configuration:** the melt flow indexer main frame with built-in printer, 8-level weight set, weight tray, piston rod, die, hopper, loading rod, cleaning rods, gauze and documentation.

— **Scope of supply** — final accessories and scope of supply are confirmed in the quotation.

SECTION IV

Applications

For determining the melt mass-flow rate and melt volume-flow rate of plastics and resins in plastic production, petrochemical industries, universities, research units and inspection departments.

Product value: MFR and MVR testing with 8 load levels and a built-in printer in standard, automatic and motorized weight-lifting configurations.

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