MELT INDEXER
L240

Melt Indexer model L240 series are the equipments that demonstrate the maximum extent through our long history of the melt flow measurement technology. We have been cultivating in this field for many years depending on our actual results and experiences. They are designed and manufactured to comply with ASTM D1238 and JIS K7210 and will fully satisfy your needs for research and quality control.

Features

● The temperature controller only for melt indexer is very excellent in temperature stability or reproducibility.
● 8 kinds of setting temperature can be registered into a temperature controller.
● Cylinder temperature adjustment can carry out in the front.
● Desk top size.

Specifications

Standard conformed to : JIS K7210, ISO1133, ASTM D1238
Test temperature range : 80～300℃
Temperature controller
　Resolution : 0.01℃
　Permissible deviation : ±0.1℃(150～300 ℃)
　　　　　　　　　　　 ±0.2℃(80～150 ℃)
Safe measure : Annunciator
Outside dimensions : W460×D410☆(510)×H600☆(825)mm
Weight : About 50☆(65)kg
　The figures in ☆( ) are the dimensions of L246 and L248.
Power : The choice of 100VAC, or 220VAC, or 240VAC
Power consumption : About 600VA
Surrounding conditions : 20℃±10°C,45～85%RH,
　　　　　　　　　　　　 Place at no vibrations.
Accessories : Die, Piston, Plug gauge, Stopwatch,
　　　　　　　　Load(325g, 2160g), Cleaning tools, etc.

Cylinder / Sample hole diameter :
　　　　　　　　　 ϕ 9.550−0, +0.007mm
Die (orifice)/Length : 8.000±0.0127mm
　Inner diameter : ϕ 2.095±0.002mm
Piston / Head outer diameter : ϕ 9.478±0.002mm
　　　　　　　　Rand lenght:6.35±0.10mm

MFR Auto Operator X419

List of Model L240 Series

Standard	Model	Measurement Method	MFR Auto Operator ※
ASTM	L245-1531	A	NO
	L246-4531	A/B	YES
JIS/ISO	L247-1531	A	NO
	L248-4531	A/B	YES

※If it is stated "YES" these items, with RS-232C output and printer.

Option

◎High temperature and corrosion-resistant.
　・Quality of the material : Hastelloy C
　・Test temperature range : 100～450℃

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MELT INDEXER
L260

This is an extruding type plastometer which is made for testing the flow of thermal plastic resin. It is made to meet JIS K7210, ASTM D1238 and ISO 1133.

Features

● Compact, light weight and desk top.
● The center of the equipment（Piston, Cylinder, Die etc.）is unit-defacement and longterm stable.
● The piston holder, attachable tool holder and the stop watch holder are better for operation.
● Optionable various weight load is available for all of measurements.
● The excessive temperature prevent, electric leakage breaker, fall down prevent etc, are safety devices.

Specifications

Standard conformed to :
 JIS K7210, ISO1133, ASTM D1238
Test temperature range : 80～320℃ 80～400℃
Temperature indication　Resolution : 0. 1℃
Main pans :
　Cylinder / Sample hole diameter : φ9.550-0, +0.007mm
　Die（orifice)/Length : 8.000±0.0127mm
　　　Inner diameter : φ2.095±0.002mm
Piston / Head outer diameter : φ9.478±0.002mm
Outside dimensions : W320×D400×H580mm
Weight : Main unit about 30kg
Power : The choice of 100VAC,
　　　　　or 220VAC, or 240VAC
Power consumption : About 450VA
Accessories : Die, Piston, Plug gauge, Stopwatch,
　　　　　Load(325g, 2160g), Cleaning tools, etc.

List of Model L260 Series

Model	Specifications
L261-1531	Standard type　　Method A(JIS/ASTM)
L262-4531	Standard type　　Method B(ASTM)
L264-4531	Standard type　　Method B(JIS)
L265-1531	High temperature type Method A(JIS/ASTM)
L266-4531	High temperature type Method B(ASTM)
L268-4531	High temperature type Method B(JIS)

Method A　(Manual cutting method)

The resin which flows out of die within the specified time is cut off and the weight of cut portion is measured, and then the melt flow rate (MFR) —the amount flowed out in 10 minutes — is calculated.

MFR is calculated by the following equation as the Mass (g) of the sample extruded in 10 min.

$$MFR(T \cdot M \cdot A) = \frac{600 \times m}{t}$$

where　T : Measuring temperature（℃)
　　　　M : Test load（kg f)
　　　　A : Operation of Method A
　　　　m : Mean value of Mass of extruded sample
　　　　t : Time required to take sample
　　 600 : 10 minutes counted in seconds

Method B　(Automatic time measuring method)

The time required by the piston to move down the specified length is automatically measured, and then the value of MFR is calculated by using the time thus obtained. For the Method B, the MFR Automatic Operator (option) used.

MFR is obtained by the following equation;

$$MFR = \frac{427 \times L \times d}{t} \quad g/10\min$$

where　L : Actually measured travel length　cm
　　　　d : Resin density　　　　　　　　　g/cm^3
　　　　t : Travel time　　　　　　　　　　sec