



Engineering,
GM DAEWOO Auto & Technology
Standards

TEST METHOD FOR THE MELT FLOW INDEX OF THERMOPLASTICS

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1. PURPOSE

This standard is used to determine the flow behavior of thermoplastics and the specified load and at the specified temperature.

2. DEFINITION

2.1. Melt flow index (M.F.I): The flow behavior of thermoplastics determined by extruding test samples through an orifice in a given time under the specified conditions (load, temperature, etc.)

3. TEST METHOD

3.1. Prepare test pieces of granule or powder type whose composition coincides with that of finished products.

3.2. In case of testing with finished products of specific shape, each side shall not exceed 5 mm.

3.3. In general, a test piece of 3 to 6g is suitable for one cycle test.

3.4. For initial sample approval and arbitration, at least three cycles of test shall be performed, and for routine quality control at least two cycles of test shall be done.

4. CONDITIONING

Conditioning shall be conducted according to the requirements specified on the drawing or material standard. Unless otherwise specified, test pieces shall be stored at a temperature of $+23^{\circ}\text{C} \pm 2\text{K}$ and a relative humidity of $(50 \pm 5)\%$ for minimum 16 hours.

5. APPARATUS

5.1. Testing apparatus for the determination of melt flow index (see Fig. 1)

5.2. Temperature regulator which can maintain a certain temperature within a tolerance of $\pm 0.5\text{K}$.

5.3. Microbalance with scale dividing value 1 mg.

5.4. Stop watch

6. TEST METHOD

6.1. Prior to the test, heat the piston and cylinder at a given test temperature for at least 15 min. previously. (Unless test temperature is not specified in the drawing or material standard, refer to Table 1.) Keep the test temperature within a tolerance of $\pm 0.5\text{K}$ during the test.