

EDS

Engineering,
GM DAEWOO Auto & Technology
Standards

THE TEST METHOD OF IMPACT RESISTANCE OF PLASTIC COMPONENTS

EDS-T-7503

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1. PURPOSE

The purpose of this standard is to determine the impact resistance of plastic components by applying the impact to them under specified conditions. This test shall be applied for plastic components which are likely to be subject to impact stresses when equipped with a vehicle.

2. SCOPE

This standard shall be applied to the test method for determination of impact resistance of plastic components.

3. TEST PIECES

3.1. The test piece shall be finished parts. If there is no special specification, then for sample approval at least 3 test pieces shall be tested. And for routine quality control, at least 1 test piece shall be tested.

3.2. Sample of components or material released to this specification shall be tested for conformity with the requirements of this specification and approved by **GMDAT** TECHNICAL CENTER prior to comments of delivery of bulk supplies.

3.3. In the event of any intentional deviation for the requirements of this specification it is the sole, responsibility of the supplier to inform the purchaser of all such deviation. Furthermore the supplier shall submit unsolicited samples for reapproval by **GMDAT** TECHNICAL CENTER prior to comments of delivery of bulk supplies.

3.4. Deviation from the requirements of this test method (e.g. test piece conditioning, technical data of test apparatus, time and temperature of test) shall have been agreed upon: Those requirements shall be specified on component drawings, etc. and shall be defined in test reports, etc.

4. CONDITIONING

The test pieces shall be maintained for at least 16 hours at a temperature of 21 to 25°C and a relative humidity of 44 to 56%.

5. APPARATUS

5.1. Apparatus A - Drop ball type impact testing machine

The testing device which an ball drops from a predetermined height so as to produce the specified impact energy by free falling the ball onto the test piece.

5.2. Apparatus B - Pendulum type impact testing machine

A pendulum type impact testing machine which an impact hammer, suspended on a pendulum of specified length, drops from a predetermined height so as to produce the specified impact energy on the test piece.