



Light Duty Impact Tester

Impact Test

Operating Manual

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1 Overview

Light-Duty Impact Tester



1115

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2 Safety



WARNING!

This manual cannot address all of the safety considerations associated with its use. It is the responsibility of the user to consult the operating manual and establish appropriate safety practices for use with this equipment and the individual material being tested.



WARNING!

The impact test requires dropping heavy weights from significant height. The weight hits the sample with tremendous force. No portion of the operator's body or clothing should be in the impact area during a test.



WARNING!

Impact testing may cause the test material to shatter. It is the responsibility of the user to determine the hazards associated with the material being tested. Test samples may explode when impacted. Eye protection must be worn while operating this device.



WARNING!

Impact testing may cause very loud noises at the moment of impact. These can be as much or greater than 95 dBA. Ear protection must be worn by all personnel in the testing area.



WARNING!

The impact tester is designed and intended for the use described in the operating manual. Using the impact tester for other purposes for which it was not designed may reduce or eliminate the protection offered by the features of the tester. Serious injury may result.

3 General

The BYK-Gardner Light Duty Impaact Tester was designed to test the resistance of coatings, surface damage and penetration by relatively small impact forces. It is particularly useful in testing finishes on appliances, furniture, and automobiles.

Direct or reverse impact resistance is determined by subjecting either side of a panel to impacts ranging from 2 to 28 inch-pounds in 2 inch-pound increments.

4 Description

This instrument consists of a sturdy cast aluminium "U" shaped base supporting a plate with a 9/16" diameter hole.

A slotted inch-pound graduated guide is suspended vertically in the upper arm of the casting above this hole.

This guide tube holds the two pound steel rod impactor.

5 Operation

The panel to be tested is placed over the hole in the base plate. The impacter is raised by means of a lift screw (which extends from the impacter through the slot in the tube) to a point where it coincides with the desired mark on the tube and then dropped. The test panel is then examined under low power magnification or flaking, cracking and deformation.

Specimens of any required thickness from thin sheet metal to pieces of material two inches is accomplished by moving the tube upward so that the lift screw is at zero mark on the tube when the punch and weight are at rest on the specimen. In most cases, this adjustment is not necessary because the results are not visibly affected by such small differences in drop height.

6 Maintenance

Replaceable Parts

The instrument does not contain any operator serviceable parts. For all service and spare parts requirements, please contact your local BYK-Gardner office.

Cleaning Procedure

Do not use any acetone for cleaning the instrument! The instrument is resistant to a number of solvents, but cannot be guaranteed to withstand all chemicals. You should therefore use a soft, moist cloth for cleaning. For cleaning excessive dirt, use propanol.

7 Declaration

We,

BYK-Gardner USA
9104 Guilford Road, Suite H
Columbia, MD 21046 USA

herewith declare that the product

- **Light Duty Impact Tester**

complies with the requirements of the following EC directive:

- 2006/42/EU Machinery

April 7, 2025 BYK-Gardner USA



Timothy A. Cassell
President and General Manager



EC - Declaration of Conformity

Notes

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A member of  **ALTANA**

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