

Measure what you see.

# Light-Duty Impact Tester



Operating Instructions

# Light-Duty Impact Tester

## Operating Instructions



PF-1115

### **BYK - Gardner USA**

9104 Guilford Road  
Columbia, MD 21046  
USA

Phone 800-343-7721  
301-483-6500  
Fax 800-394-8215  
301-483-6555

### **BYK-Gardner GmbH**

Lausitzer Str. 8  
D-82538 Geretsried  
Germany

Tel. 0-800-gardner  
(0-800-4273637)  
+49-8171-3493-0  
Fax +49-8171-3493-140



## Safety Instructions

**Warning!** This manual cannot address all of the safety considerations associated with its use. It is the responsibility of the user to consult this 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.

**Warning!** 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 this 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.

**Description**

The BYK-Gardner Light Duty Impact 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.

## General Information

This instrument consists of a sturdy cast aluminum „U“ shaped base supporting a plate with a 9/16“ diameter hole. A slotted inch-pound graduated guide tube is suspended vertically in the upper arm of the casting above this hole. This guide tube holds the two pound steel rod impactor.

## Operation

The panel to be tested is placed over the hole in the base plate. The impactor is raised by means of a lift screw (which extends from the impactor 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 for flaking, cracking and deformation.

Specimens of any required thickness from thin sheet metal to pieces of material two inches thick may be used. Compensation for panel thickness is accomplished by moving the tube upward so that the lift screw is at the 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.

