

## SL-S12 Sharp Edge Tester



### Application

Used to determine whether the edge of a toy or item is a sharp edge with an unreasonable risk of injury.

### Product Information

To determine whether accessible edges on toys are likely to cause injury. A self-adhesive PTFE tape is attached to a mandrel, which is then rotated for a single 360-degree revolution along the accessible edge being tested. If the tape is cut in half or longer in length (approx. 13 mm), the edge is identified as a hazardous sharp edge. Toys intended for use by children under 8 years old are subject to this requirement before or after use & abuse testing.

## Test principle

The steel shaft used to simulate children's fingers needs to be hardened. The surface Rockwell hardness should be no less than 40, the surface roughness should not be greater than 0.40 microns, and the diameter should be  $9.35 \text{ mm} \pm 0.12 \text{ mm}$ . A layer of simulated artificial skin tape was applied perpendicularly to a steel shaft wrapped with simulated artificial skin glue with a force of 6 N (1.35 lb). The steel shaft was constant tangent at  $23 \text{ mm/sec} \pm 4 \text{ mm/sec}$ . The speed is rotated for one week. Check the edge of the test to cut (cut) the simulated artificial skin adhesive paper. If cut (cut), the tested edge is defined as a potentially dangerous sharp edge.

## Sharp edge tester usage and judgment results

1. Attach the PTFE adhesive tape to the mandrel as required, and then rotate the mandrel along the tested accessible edge by  $360^\circ$ . Check that the test adhesive tape is gravity-corrected.

Whether the ball can pass the test template completely. The length of the cut. Calculate the percentage of the length of the cut tape. Judgment: If the adhesive tape is cut by 50%

Split, the edge is considered to be a sharp edge.

2. The edge to be tested shall be the accessible edge determined after the accessibility test of the toy part or component.

3. If the touchable edge of the toy as a whole cannot be tested, in the case of simulating the toy as a whole, the accessible edge can be removed and tested separately.

4. The key to the sharp edge test is how to fix the detected edge and ensure that the mandrel is at right angles to the edge, and there is no phase between the mandrel and the edge during the test.

For sports.

5. During the rotation of the mandrel, it should be ensured that the pressure applied to the mandrel is continuously stable.

## SL-S01 Sharp Point Tester

### Product information

To determine whether accessible sharp points on toys are likely to cause injury. If the accessible sharp point penetrates a specified depth into the small rectangular opening of the tester, the LED is illuminated to indicate that the point is unacceptably sharp. Toys intended for use by children under 8 years old are subject to this requirement before or after use & abuse testing.

Accessories: weight, batteries, bulb 2 pieces

### Testing Standards

16 CFR 1500.48, ASTM F963 4.8, EN-71 1998 8.14, ISO 8124

POWER 1.5AA batteries x 1 (for 2000 times test)
WEIGHT 1.5KG
DEMENSIONS 150*100*60 MM (L*W*H)



