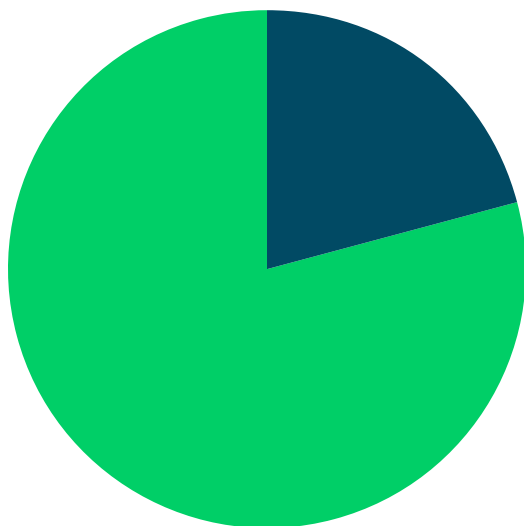


ANSI/ISEA 105-2023

PUNCTURE LEVELS

ANSI/ISEA 105 Puncture testing identifies the performance characteristics of hand and arm protection products against punctures from pointed objects. There is a separate test (not covered in this guide) for hypodermic needle testing. This testing standard measures the force in Newtons required to puncture the material with a pointed object, in PPE products such as gloves and sleeves. The result is classified on levels 1-5.

Overview of Hand and Arm Injuries



21%
of all injuries that
required days away
from work in 2020 were
to the hands and arms



ANSI/ISEA 105-2023 Puncture Testing Process



1. A pointed probe similar to a ballpoint pen is fitted into the machine at a 90° angle
2. The material to be tested is positioned and secured between two metal plates
3. The probe is lowered, penetrating the test fabric at a speed of 100mm/min
4. Results are reported in Newtons

[Click to watch video](#)

Puncture Levels Testing Results



- General Maintenance
- General Purpose
- Manufacturing
- Small Parts Handling



- Automotive
- Construction
- Landscaping
- Material Handling
- Warehouse



- Brickwork
- Assembly
- Oil and Gas
- Mining
- Petrochemical
- Utilities



- Aerospace Industry
- Carpentry
- Demolition
- Glass Handling
- HVAC
- Infrastructure Maintenance
- Metal Fabrication
- Recycling
- Roofing
- Steel Framing



- Cable
- Construction
- Forestry
- Lumber
- Rebar Handling
- Barbed Wire
- Waste Management

New Icon Designation

**ANSI/ISEA
105**



Cut

Abrasion

Puncture