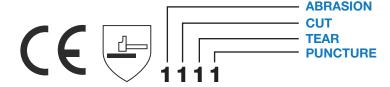
# **EN388 - MECHANICAL RATING OVERVIEW**



focus on quality



The purpose of a mechanical rating is to inform a worker of the levels of physical protection that they can expect to get from the glove they are using. There are four mechanical threats that a CE mechanical rating addresses.

### These are:

- 1. Abrasions: Scrapes to the hand by abrasive surfaces.
- 2. Cuts: Lacerations to the hand by sharp blades or edges.
- 3. Tears: Tears to the skin caused by a protruding ragged edge.
- 4. Punctures: Punctures caused by protruding objects such as glass, nails or splinters.

CE EN388 is the European testing standard by which gloves are tested for their resistance to these four threats.



## **The Abrasion Test**

A rotating glass grit paper is applied to the glove surface under a controlled pressure.

The rating reflects the number of cycles required to break through the material.

Highest Rating: 4 Lowest Rating: 1



#### **The Cut Test**

A sharp circular blade cycles back and forth over the glove sample under controlled pressure until it cuts through. Cut level results are obtained by comparing the number of cycles to tests done on reference materials.

Highest Rating: 5 Lowest Rating: 1



# **The Tear Test**

Resistance is measured by using a machine called a "Tensometer," which pulls the glove sample apart at a controlled speed. The material receives a rating based on the amount of force required to tear it apart.

Highest Rating: 4 Lowest Rating: 1



#### **The Puncture Test**

A rounded-tip probe (similiar to a very thick nail) is forced through the glove material at a controlled speed. The material is rated by how much force is required to break through the fabric.

Highest Rating: 4 Lowest Rating: 1

It's important to note that CE Mechanical ratings always consist of 4 numbers and always follow the same order of abrasion, cut, tear and puncture. For example, the CE mechanical ratings for our RONCO DEFENSOR 3 glove are 4342. This means:

Abrasion : resistance level 4
Cut : resistance level 3
Tear : resistance level 4
Puncture : resistance level 2

