

EN 388 — Protective gloves against mechanical risks

The standard for gloves that provide protection against mechanical injury defines hazards including abrasion, cuts, punctures or tears. The "mechanical risks" pictogram uses a scale of one to six to provide an overview of the protection a glove provides against the following hazards:

EN 388

a b c d e f

- a Abrasion resistance (performance rating 0–4)
- b Circular blade cut resistance (performance rating 0–5)
- c Tear resistance (performance rating 0–4)
- d Puncture resistance (performance rating 0–4)

Since the revised standard EN388:2016 came into force, gloves are also tested against the following hazards:

- e Straight blade cut resistance in accordance with EN ISO 13997 (performance rating A–F)
- f Impact resistance (– /P)

EN 407 — Protective gloves against thermal risks

The standard EN 407 specifies the requirements for gloves providing protection against heat or flames. Thermal hazards occur at temperatures of 100°C or over. The "heat and fire" pictogram indicates the type and degree of the protective effect using a numerical code.

The gloves must also achieve a minimum of level 1 for abrasion and tear resistance in accordance with EN 388.

EN 407

a b c d e f

- a Resistance to flammability (performance rating 0–4)
- b Contact heat resistance (performance rating 0–4)
- c Convective heat resistance (performance rating 0–4)
- d Radiant heat resistance (performance rating 0–4)
- e Resistance to small splashes of molten metal (performance rating 0–4)
- f Resistance to large splashes of molten metal (performance rating 0–4)

EN 511 — Protective gloves against cold

This standard applies to gloves that provide protection against convective and contact cold down to -50°C. The "cold hazard" pictogram uses a numerical code to describe the protective properties of gloves regarding resistance to convective cold, resistance to contact cold and impermeability to water. The gloves must also achieve a minimum of level 1 for abrasion and tear resistance in accordance with EN 388.



- a Convective cold resistance (performance rating 0–4)
- b Contact cold resistance (performance rating 0–4)
- c Water impermeability (performance rating 0–4)

EN 12477 — Protective gloves for welders

Protective gloves for manual welding, cutting and related metal machining operations are defined in the standard EN 12477.

The gloves meet basic standard EN 420, as well as the minimum values of standards EN 388 and EN 407. However, they are significantly longer to protect users against welding beads.

The standard divides the gloves into type A and type B:

- Type A gloves comply with higher protection requirements and are recommended for heavy welding processes.
- Type B gloves offer more freedom of movement and are recommended for TIG welding.

Welding gloves must be clearly identified as type A or type B.

EN 16350 — Electrostatic properties of protective gloves (ESD)

The minimum requirements for the electrostatic properties of protective gloves are defined in DIN EN 16350 as follows:

Contact resistance (tested in accordance with DIN EN 1149-2) must be less than 100 m ohms ($R_v < 1.0 \times 10^8 \Omega$).

A person wearing protective gloves with electrostatic discharge properties must also be properly earthed, for example by wearing suitable footwear.

European PPE regulation (EU) 2016/425

This regulation defines the minimum requirements for users of personal protective equipment (PPE). In particular, the standard specifies a number of responsibilities for the employer. The employer is required to analyse potential hazards in advance and reduce risk as much as possible. In addition, the employer must inform its employees about the dangers of their workplace and provide them with convenient, appropriate PPE that conforms to the relevant standards. Furthermore, the employer must examine and evaluate the hazards in the workplace and select appropriate protective gloves. The gloves used must conform to PPE requirements. The employer must also document and justify the selection of gloves.

The European PPE Directive distinguishes between three categories of protective gloves:

Category 1 refers to minor risks, including gloves for garden work or domestic tasks.

Category 2 gloves protect against medium risks, usually curable damage and injuries.

Category 3 items are subject to the highest requirements and stipulations. These gloves protect against irreversible and potentially fatal hazards caused by chemicals, radiation, extreme heat or cold and other risks.

EN 420 — General requirements

The European Standard EN 420 defines the general requirements for protective gloves of all categories and methods for testing gloves. In conjunction with basic standard EN 420, there are a number of specific standards. If the product meets this standard, the manufacturer creates a declaration of conformity for category 1.