



Insulating gloves and boots

Insulating gloves and boots are personal protective equipment frequently used by electricians as **auxiliary protective equipment** against electrical shocks, in all types of low and high voltage power installations. They represent a barrier against the passage of electric current between the live conductor and the earth, by means of the human body.

Insulating boots also represent protection against the electric shocks following the contact between the feet and two points of different potential, as the human body is subject to the difference between the two potentials (pace voltage).

The ELECSAVE insulating gloves, in addition to other insulating gloves, have been successfully tested for their performance under the thermal effects of electric arc, in accordance with the requirements described in standards EN 61482-1-1: 2009 and ASTM F2675 / F2575M-13.

Besides their insulating properties, insulating gloves and boots also have other protective characteristics against substances or agents that may affect the human body, classified as follows with regard to their protective category:

- A:** acid resistant
- H:** oil resistant
- Z:** ozone resistant
- C:** resistant against very low temperatures (-40°C)
- M:** high mechanical resistance - only for gloves
- R:** cumulates the protective characteristics type A, H, Z, M - only for gloves

Insulating gloves are made of natural latex (rubber).
Insulating boots are made of polymers or elastomers.

Insulating gloves and boots are types of equipment that require periodical dielectric inspection to make sure they maintain their insulating properties. The voltage rates applied to this equipment are called test voltage rates / withstand voltage, and their values are regulated by standards depending on the operating voltage. Periodical inspection must be performed in special conditions, in laboratories authorised for such tests by the Romanian Accreditation Association RENAR.

NOTE: Romind T&G has a High Voltage Test Laboratory

* **Test voltage** = specified value of the voltage applied to a glove / boot throughout a definite period of time, in conditions specified by the standard, in order to see whether the insulation level is higher than a given value.

** **Withstand voltage** = the specified value of voltage which a glove / boot must withstand without flash-over, striking, puncture or another electrical effect when voltage is applied in standard specified conditions.

Gloves Class	Category	Maximum operating voltage rate (V AC / DC)	Test voltage (V AC / DC)	Withstand (puncture) voltage (V AC / DC)
00	AZC or RC	500 / 750	2500 / 4000	5000 / 8000
0	RC	500	5000 / 10000	10000 / 20000
2	RC	1000 / 1500	20000 / 30000	30000 / 60000
3	RC	17000 / 25500	30000 / 40000	40000 / 70000

Boots Class	Size range	Maximum operating voltage rate (V AC)	Test voltage (V AC)	Withstand (puncture) voltage (V AC)
0	37 ÷ 47	1000	5000	10000
1	37 ÷ 47	17000	20000	30000

EN 60903 **EN 61482**

ASTM F2675/F2575M-13



SR EN 20347



SR EN 50321

