



### 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).

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 accredited by RENAR .

\* **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.

EN 60903



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SR EN 20347



SR EN 50321

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Gloves Class	Category	Maximum operating voltage rate (V AC)	Test voltage (V AC)	Withstand (puncture) voltage (V AC)
00	AZMC	500	2500	5000
00	RC	500	2500	5000
0	RC	1000	5000	10000
1	RC	7500	10000	20000
2	RC	17000	20000	30000
3	RC	26500	30000	40000

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	7500	10000	20000
2	37 ÷ 47	17000	20000	30000

