

ELECTRICAL SHOCK RESISTANT FOOTWEAR



Date: October, 23th

Time: 10 AM

Specimen: 520M-008 S3 HRO "CANYON"
COMPOSITE RIGGER BOOT

Environment: 20°C rH 51%

Test Standard : CSA Z195

EVALUATION : PASS

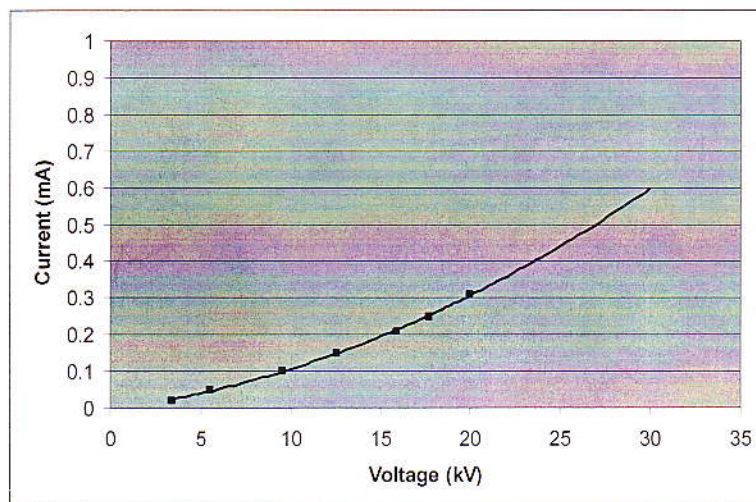
The test specimen withstood a potential of 20 kV 60Hz for a period of 1 min without disruptive discharge to ground.

The leakage current didn't exceed 0.31 mA in the test specimen without insole, and 0.26 mA with the standard insole.

The footwear meets the test requirements for CSA Z195.

Following the trend current-voltage, we can expect a good performance at 30 kV too (see below graphic).

Points represent readings, the curve is our prediction. CSA Z195 states that the maximum leakage current should be 1.0 mA.



TEST PERFORMED BY: Antonio Albanese, Luigi Marino, Giuseppe Tucci

Customer ID: **Iman Teheran Co. Ltd.**

Sample	Test Method	Test Result	CSA requirement	Commento
Article nr. "520M55"	Electrical insulation at (18 kV) – following the Canadian CSA norms.	0,6 mA	≤1,0 mA	OK
Article nr. "520M55"	Electrical insulation at (30 kV) – following the Canadian CSA norms.)	-,- mA (*) (*) electrical perforation at 28 kV	-	-

Basino on the results obtained by the CIMAC, we can calculate the electrical resistance of the footwear making a Ratio between the VOLTAGE and the Ampere.

$$\frac{18000 \text{ V}}{0.6 \times 10^{-3} \text{ A}} = 30.000.000 \text{ } \Omega$$

At a constant electrical resistance and increasing the VOLTAGE we can calculate the Current going through the footwear.

(V)	(Ω)	(A)
18.000	30.000.000	$6,00 \times 10^{-4}$ A (0.6 mA)
20.000	30.000.000	$6,67 \times 10^{-4}$ A (0.667 mA)
22.000	30.000.000	$7,33 \times 10^{-4}$ A (0.733 mA)
24.000	30.000.000	$8,00 \times 10^{-4}$ A (0.8 mA)
25.000	30.000.000	$8,33 \times 10^{-4}$ A (0.833 mA)
26.000	30.000.000	$8,67 \times 10^{-4}$ A (0.867 mA)
27.000	30.000.000	$9,00 \times 10^{-4}$ A (0.9 mA)

N.B. The CIMAC does not register every A at every V level. They register only the maximum value at which the footwear shows electrical perforation.

The table of the values is a projection.

We recommend not to publish the limit of 27.000 V although that this is very near the reality.

For precaution we advise to stick with the 25.000 V value.

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TEST REPORT: RP 20095302 of 09/11/2009

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DATE OF RECEIVING OF THE SAMPLE: 26/10/2009

SAMPLE RECEIVED FOR TESTING:

Sample of half-knee safety boot for professional use designed art. "520M55"

TEST REQUESTED:

Determination of electrical resistance

			
EMISSIONE	P. BIGLIA	S. MILANESI	G. BELLOTTI
OGGETTO	LAB. FISICO	LAB. CHIMICO	RESP. TECNICO

- Il contenuto del presente rapporto di prova si riferisce unicamente al campione esaminato.
- Il residuo del campione analizzato si conserva per tre mesi.
- Il rapporto di prova non può essere riprodotto in forma parziale senza autorizzazione scritta del CIMAC.
- Il rapporto di prova non ha validità di approvazione e/o certificazione del campione esaminato.
- Il campionamento del materiale ricevuto da esaminare, se non espressamente indicato, è stato effettuato dal cliente.



2009110017

Physico-mechanical laboratory

Tests carried out from 02.11.09 to 04.11.09

Test method: CAN/CSA-Z195-02 - Determination of electrical resistance (electric-shock-resistant footwear).

Reference to test register: KS/10648

Results:

Leakage current at 18 kV for a period of 1 minute = 0,6 mA

Test method: CAN/CSA-Z195-02 mod. - Determination of electrical resistance (electric-shock-resistant footwear).

Reference to test register: KS/10649

Results:

Leakage current at 30 kV for a period of 1 minute = at 28 kV the footwear shows perforation.

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Spett.le

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70051 BARLETTA BA**

Prot: 30422

GB/ga

09/11/2009

RE: Sample of half-knee safety boot for professional use designed art. "520M55"

With reference to the test report RP 20095302 of 09.11.09 it is possible to state that the tested boot complies with what prescribed by CAN/CSA-Z195-02 standard, relating to the electrical resistance (electric-shock-resistant footwear).

Best regards

Ing. Giuseppe Bellotti

(Technical Responsible of the Centre)