

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

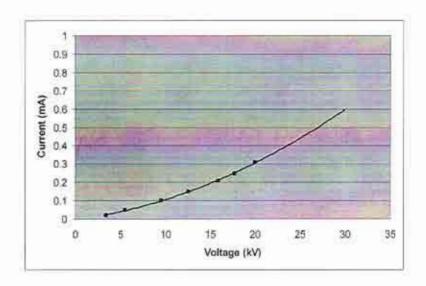
The test specimen withstanded a potential of 20 kV 60Hz for a period of 1 min without disruptive discharge to ground.

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, Antonio D'Alba, Giuseppe Tucci

Customer ID: Iman Teheran Co. Ltd.

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

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

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	$6.00 \times 10^{-4} \text{ A} (0.6 \text{ mA})$
20.000	30.000.000	6,67 x 10 ⁻⁴ A (0.667 mA)
22.000	30.000.000	$7,33 \times 10^{-4} \text{ A} (0.733 \text{ mA})$
24.000	30.000.000	$8,00 \times 10^{-4} \text{ A} (0.8 \text{ mA})$
25.000	30.000.000	8,33 x 10 ⁻⁴ A (0.833 mA)
26.000	30.000.000	8,67 x 10 ⁻⁴ A (0.867 mA)
27.000	30.000.000	$9,00 \times 10^{-4} \text{ A} \text{ (0.9 mA)}$

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.

A.N.C.I. Servizi S.r.l.

Sede legale e amministrativa 20149 MILANO Via Monte Rosa, 21 Tel. 02.438291 Fax 02.48005833 Cap. Soc.: € 10.400 i.v. C.F./P.L: 07199040150 Reg. Imprese n° 229059 Trib. di Milano R.E.A. n° 1147818



Sede operativa: 27029 VIGEVANO (PV) - C.so G. Brodolini, 19 - Tel. 0381.84722 - Fax 0381.73393 - E-mail: segreteria@cimacpv.it - Internet: http://www.cimacpv.it

PEZZOL SRL

Via Trani, 107 Barletta 70051

BA

TEST REPORT: RP 20095302 of 09/11/2009

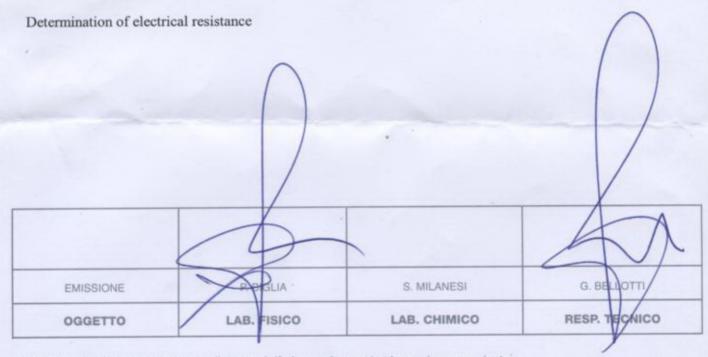
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DATE OF RECEIVING OF THE SAMPLE: 26/10/2009

SAMPLE RECEIVED FOR TESTING:

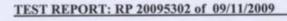
Sample of half-knee safety boot for professional use designed art. "520M55"

TEST REQUESTED:



- 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.

Centro Italiano
Materiali di Applicazione
Calzaturiera
CIMAC



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

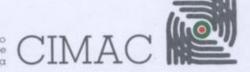
Results:

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

A.N.C.I. Servizi S.r.l.

Corso G. Brodolini, 19 27029 VIGEVANO (PV) Sede amministrativa Via Monte Rosa, 21 - 20149 MILANO Tel. 02.438291 E-mail: documentazione@cimacpv.it Telefax 02.48005833

Tel. 0381.84722 Telefax 0381.73393 Centro Italiano Materiali di Applicazione Calzaturiera



Spett.le

Sede operativa

PEZZOL SRL VIA TRANI, 107 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-shockresistant footwear).

Best regards

Ing. Giuseppe Bellotti

(Technical Responsible of the Centre)