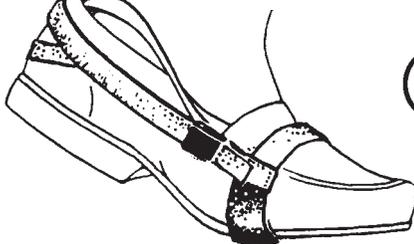


Split elastic strap is also appropriate for high heel shoes.



FOR BEST RESULTS WEAR FOOT GROUNDERS ON BOTH FEET.



**Note:**

Two heel straps are recommended for reliable grounding and ESD protection, providing ground when one foot is off the floor.

Operator is grounded when foot is in contact with grounded dissipative or conductive flooring.

Charleswater recommends the use of foot ground tester item No. 99004.

For additional information on the use and maintenance of foot grounders please ask for Technical Bulletins PPE-5006.E or PPE-5011.E.

Item No.	DESCRIPTION
70008	Toe Ground, w/1 megohm resistor, UL listed

**Caution:** The foot grounder is for ESD control. It will not reduce or increase your risk of receiving electric shock when using or working on electrical equipment.



Per IEC 61340-5-2 paragraph 5.2.8, footwear should be used “where personnel are mobile, in storing areas, operating large machinery, etc., it may be impractical or dangerous to have long cords attached to them.” Use for ESD Footwear component when footwear/floor systems are used as the primary means of grounding. Per IEC 61340-5-1 Table 1 NOTE 2 - “When the personnel, the resistance of the combination shall be determined by the ESD co-ordinator, and is recommended to be between  $7,5 \times 10^5$  ohms and  $3,5 \times 10^7$  ohms.” Note IEC 61340-5-1 paragraph 5.5 EPA working practices, “When the use of a wrist strap system is impractical, the [ESD] floor and [ESD] footwear shall be the primary means of ESD control.” And per Paragraph 5.2.4, “When the floor is used as part of a grounding system, a minimum of two feet shall provide a path to EPA ground.”

**Key:**

- A. Sole, black exterior, heat fused rubber composite for durability.
- B. Sole, brown interior surface prevents marking.
- C. 76 cm long ribbon, blue polyester woven with conductive nylon thread.
- D. Dual Ankle Strap, 16 mm stretch elastic material.
- E. Toe Strap, adjust for snug fit, 20mm stretch elastic.
- F. Adjustable Buckle for snug fit behind the heel.
- G. Series Resistor, available with a 1 megohm, 2 megohm, or without resistor.
- H. Split elastic strap loops down for high heel shoes.

	Brown Layer	Black Layer	Test Method
<b>Electrical Properties:</b>			
Charge Decay		less than 0.01 sec.	FTMS 101C, Method 4046
Surface Resistivity		$10^3$ Ohms	ASTM-D257
Rg w/1 megohm resistor		$10^6$ Ohms max.	EOS/ESD-S4, 100v
RTT		$10^5$ Ohms max.	
<b>Specifications:</b>			
Abrasion	800 cycles	3000 cycles	ASTM-D3389, Method B
Hardness	70 Shore A	70 Shore A	ASTM-D2240
Elongation	25%	25%	ASTM-D412
Tensile	1500psi	1500psi	ASTM-D412

**Instructions to Attach**

1. Remove the Toe Ground from the shipping packaging. Notice the “O” shape formed by the rubber and stretch band piece. Slip the toe of your into the “O” shape so that the stretch band is on top of the shoe and the brown rubber is against the sole. The black side of the rubber should be in contact with the floor when you walk.
2. Secure the Toe Strap by adjusting the long stretch elastic section. For high heel shoes, slip the elastic around and under the high heel. Close the buckle to assure a comfortable fit.
3. Tuck the ribbon into your shoe and step in.

Designed to satisfy Footwear requirements of IEC 61340-5.



**Toe Ground, Adjustable**

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Drawing Number  
**70008.E**

DATE:  
**5/05**