

Standard Reference Elastomers (SRE): BAM-E004

Rubber Sole Sheet for measuring the electrostatic charging of floor carpets by a walking test

1. Scope and field application

A rubber sole sheet is an elastomer article which is used for the determination of the electrostatic charging of floor coverings generated by a person who walks on them.

2. Formulation of the rubber mixture

	parts by mass
a) Natural rubber SMR L	100.0
b) Carbon black N 330 (Corax N 330)	25.0 to 29.0 ¹⁾
c) Zinc oxide (Zinkweiss Pharma 8)	50.0
d) Stearic acid	1.0
e) Antidegradant IPPD (Vulkanox 4010 NA)	1.0
f) Sulphur	2.5
g) Accelerator MBTS (Vulkacit DM)	1.8

Conditions of vulcanisation: 150 °C, 18 min

3. Specifications

In the standard DIN EN 1815 or DIN 54345 Teil 2 the requirements for the electrical resistance of a person standing on a metal plate are 10^8 to 10^9 Ohm. The design of the measuring sandal has an important influence on whether this requirement is fulfilled. The requirements on the rubber sole sheet are therefore directly correlated with the configuration of the sandal. Conditions for the configuration of the sandal: The sandal must have 4 to 5 metal rivets placed in a manner that they are in contact to the sole of foot. The total contact area of the rivets (for one sandal) must be 5 to 6 cm².

a) Density according to ISO 1183-1	(1.33 ± 0.02) g/cm ³
b) Hardness according to ISO 48-4	(60 ± 3) Shore A

¹⁾ In order to completely fulfil the specifications for the volume resistivity, the carbon black content in the rubber mixture has to be freely chosen within the given range.

4. Dimensions

(3.0 ± 0.5) mm x 117 mm x 337 mm

5. Storage

Cool, dry, protected from light and kept in a protective cover (e. g. polyethylene bag) completely closed.

6. Guarantee

If used properly: 1 year.

7. Identification

The standard reference elastomeric sheet is labelled indicating the producer (BAM), the material identification and the serial number.

The SRE is produced, certified and supplied by

Bundesanstalt für Materialforschung und -prüfung (BAM)

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