



Standards Relating to the Product

BS 6351	Part 1 1983 Part 2 1983 Part 3 1983	Specification for Electric Surface Heating Devices Guide to the design of Electric Surface Heating Devices. Code of Practice for the installation, testing and maintenance of Electric Surface Heating Systems
BS EN 60-335-1 (IEC 335 – 1)	Safety of household and similar Electrical appliances General requirements	
BS 7671 (IEE wiring regulations 16th edition)	1992 Requirements for Electrical Installations	
Zone 2	Equipment has no exposed contacts or terminations providing it is installed in equipment according to Zone 2 regulations the component part will not cause additional hazard. The heating element and all electrical parts are hermetically sealed within the vulcanised rubber enclosure.	

Notes:

- The product is supplied as a component part, for installation for use by the customer as part of an end product or system.
- BS 6351 is primarily concerned with pipe heating and similar products, whereas the product covered by our technical file is a flexible 'heater mat' type product intended for application to the surface to be heated.
- Tests on the construction and installation system have been made by using the tests of BS EN 60-335-1 2012 and BS 7671 1994 to ensure compliances with the latest requirements for construction and insulation systems.
- Details of original tests and Calculations used in the design of the product. Observations and results from conceptual tests and examinations.
- a. Individual heater design arrived from wire manufacturers data and customer requirements (see design drawings) Performance criteria is dependent upon end use and is the responsibility of the customer.

b. Tests:

Flash test foil to (layer 1) element	3750 Volts
Standard laminate foil (layer 2) element	
After lamination cold	3750 Volts

As 1 but with unit at operating temperature (max) achieved by lagging unit and running till steady.

Criteria- No breakdown or flash over.

Moisture Treatment

Sample immersed in saline solution:

1 hour Flash Test.	Solution to element- 1250 and 3750 Volts
2 hours Flash Test.	Solution to element- 1250 and 3750 Volts
3 hours Flash Test.	Solution to element- 1250 and 3750 Volts
4 hours Flash Test.	Solution to element- 1250 and 3750 Volts

Criteria- No breakdown or flash over.

Strain Relief Test

On made up sample	25 x 100 Newtons
On moulded block supply cord not terminated	25 x 100 Newtons

Criteria- No movement at exit point. No electrical damage.

Torque Test

0.35 Newtons for one minute

Criteria- No strain to connections or damage to cord anchorage.

Check On Crimping

Sample of joint- 5 Newton pull on conductor supply element

Criteria – Joint intact.



ISO 9001:2008
FM 558985

UL and VDE approved manufacturing facilities