



7718/12/250 ELECTRICAL TEST DATA

**POWER
ADHESIVES**

DATA SHEET

Following several customer requests for more comprehensive electrical test data, we have tested this adhesive using BS EN 60234-1 and BS 6233 test methods.

The test methods evaluate breakdown voltage (dielectric strength) and resistivity.

The technical data sheet has been amended to reflect the new test methods and corresponding results.

The technical data sheet quotes a typical or average result of the actual results shown in the table below:

Dielectric Tests: a) Breakdown voltage in accordance with BS EN 60234-1
b) Volume and Surface Resistivity in accordance with BS 6233

Material: 6 off sheet specimens cast on to a steel base plate

Specimen Dimensions: 176 mm x176 mm (see table) mm

Preconditioning: 24 Hours at $23 \pm 2^{\circ}\text{C}$ and RH $50 \pm 5\%$

Breakdown Test Set up: ERA 100 kV test rig No. 76-023, calibrated 4/10/03
25mm diameter copper HT mandrel
Steel base plate earth plane
Surrounding Medium: Clean silicone oil
Rate of Rise of Voltage: ~ 2 kV/sec.

Resistivity Test Set up: Megohmmeter No. 076-023, calibrated 3/9/03
Temperature and Humidity probe No. 5120, calibrated 2/2/03
Timer No. 8 Geo, calibrated 27/5/03
Micrometer No. 74-113 calibrated 23/10/03

Results:

Specimen No	Thickness mm	Breakdown voltage kV	Breakdown Strength kV/mm	Specimen No	Surface Resistivity MO	Volume Resistivity MO.mm
1	2.51	34.2	13.6	4	1.84×10^6	1.25×10^6
2	2.53	41.0	16.2	5	2.54×10^6	1.27×10^6
3	2.42	20.0	17.1	6	3.17×10^6	1.64×10^6

HEALTH & SAFETY

Hotmelt adhesives pose virtually no hazards to health when used in normal industrial practice, but because they are used in a molten state at high temperatures there is a risk of thermal burns. Skin contact with molten hotmelt should be avoided and precautions taken against accidental splashes of adhesive. The use of overalls, cotton gloves and safety glasses help minimise the risk of burns.

INHALATION: Vapours given off during normal operation are not considered toxic, but if overheated, chemical breakdown of the components may occur releasing a complex mixture of organic materials, some of which may be toxic or irritant. Ensure hotmelts are run at the recommended operating temperatures and use in a well-ventilated area.

EYE CONTACT: For solid hotmelt treat as inert particles and irrigate copiously with clean fresh water. For molten hotmelt irrigate with cold water and seek medical advice immediately.

SKIN CONTACT: Solid cold hotmelt is harmless to the skin. Wash hands with soap and water. Skin affected by molten hotmelt should be plunged into cold water immediately and left until the burning sensation subsides. If no tap is accessible have a bucket of clean cold water available. If coated with hotmelt move fingers to prevent a tourniquet effect as it cools. Do not remove the adhesive when molten as it might remove skin to quite a depth leaving a raw wound. Even when solid remove with care as the above may still occur. If difficult to remove, with medical approval, olive oil or liquid paraffin should be soaked into a cottonwool pad and placed over the affected area. This will slowly soften the adhesive into the pad. When hotmelt is removed treat as a normal burn.

FIRE: Not normally a hazard, but in a fire hotmelts are combustible, use dry powder or CO2 extinguisher. Do not use water.

STORAGE

Store in a clean dry place at temperatures between 5°C and 30°C with boxes closed. Do not expose to direct sunlight or localised heat sources such as radiators or hot pipes.

REMOVAL OF GLUE

Assembled components can be separated by heating assembly to a temperature slightly above the heat resistance figure.

EVA & POLYPROPYLENE: Residues of EVA and polypropylene based hotmelts can be removed from components with white spirit.

POLYAMIDE: Residues of Polyamide based hotmelt can be removed from components with acetone.

PLEASE NOTE

The information contained on this data sheet is for guidance only. It is the result of careful laboratory evaluations by trained and qualified staff using British Standard or similar test methods. However, no warranty is expressed or implied regarding the accuracy of the data or the suitability of the adhesive for any specific purpose. In every case, we strongly recommend that the user shall make their own test to determine to their own satisfaction the suitability of the adhesive for their particular purpose. Neither seller nor manufacturer shall be liable for any injury, loss, damage, direct or consequential arising out of the use or inability to use the product. Further information is always available to help solve your adhesive problems. Should you require any further information on our adhesives or applicators please contact your nearest distributor.

