

Vapour-permeable Adhesive Film Dressing

Semipermeable Adhesive Dressing

Definition Vapour-permeable Adhesive Film Dressing is a sterile, extensible, waterproof, water-vapour permeable polyurethane film of low reflectance, evenly coated with a synthetic adhesive mass. It is transparent. The adhesive surface is covered with a suitable protector and does not offset when the protector is removed. There may be a coloured non-adherent strip or other suitable device on at least one edge to facilitate handling.

The dressing is supplied sterile in single pieces.

Film identification Prepare a 10% w/v solution in *tetrahydrofuran* of part of the residual film obtained in the test for Weight of film. Apply a few drops to a sodium chloride plate and allow the solvent to evaporate. The *infrared absorption spectrum* of the resulting film, Appendix II A, is concordant with the *reference spectrum* of polyurethane.

Adhesiveness Complies with the tests, Appendix XX H.

Extensibility Complies with the test, Appendix XX G, except that the load required to produce a 20% extension under the specified conditions is not more than 2 N per cm width (about 0.2 kgf per cm width).

Waterproofness Complies with the test, Appendix XX K.

Water-vapour permeability Not less than 500 g m⁻² per 24 hours, Appendix XX J1.

Weight of adhesive mass Not less than 20 g m⁻² when determined by the method described under Weight of film. Calculate the weight of adhesive mass from the expression $(W-f)/A$.

Weight of film Not less than 25 g m⁻² when determined by the following method. Measure the area of a sample weighing 10 g (*W*). Soak it in *toluene* or *propan-2-ol* for about 60 seconds, remove from the solvent and immediately wipe the adhesive from it using absorbent cotton soaked in the solvent. Wash the film by agitating it in clean solvent for about 30 seconds and dry the residual film to constant weight at 40°. Calculate the weight per unit area of the film from the expression f/A where *f* is the weight of the residual film and *A* is the area of the unextracted sample.

Sterility Complies with the *test for sterility*, Appendix XVI A, using about 10 cm² as the minimum quantity for each culture.

Vapour-permeable Waterproof Plastic Wound Dressing

Semipermeable Waterproof Plastic Wound Dressing

Definition Vapour-permeable Waterproof Plastic Wound Dressing consists of an absorbent pad attached to a piece of vapour-permeable waterproof plastic adhesive tape so that a suitable adhesive margin is left. The pad and adhesive margin are covered with a suitable protector which, when removed, does not detach the pad from the tape.

The pad may be impregnated with a suitable antiseptic, as specified in the general requirements for Surgical Dressings. It may be dyed with a suitable yellow dye.

The tape consists of an extensible plastic film spread evenly with an adhesive mass and is waterproof but is permeable to water vapour and air. The film may be coloured with a suitable pigment.

Assembly; Dimensions of adhesive margin The pad is substantially the same shape as the dressing, attached as centrally as possible to the tape, leaving a margin of not less than 3 mm or not less than 10% of the overall dimensions, whichever is the greater. The width of the margin on any one side is not less than half the width of the margin on the opposite side.

The corners of the dressing may be trimmed; any such trimming is disregarded when defining the shape and dimensions of the dressing.

Tape

Adhesiveness Complies with the tests, Appendix XX H.

Extensibility Complies with the test, Appendix XX G.

Waterproofness Complies with the test, Appendix XX K.

Water-vapour permeability Not less than 500 g m⁻² per 24 hours, Appendix XX J1.

Weight of adhesive mass Not less than 25 g m⁻², Appendix XX D3, using Method III of Appendix XX D2.

Weight of film Not less than 65 g m⁻², Appendix XX D2, Method III.

Absorbent pad

Content of antiseptic If present, complies with the appropriate requirement, Appendix XX P.

Dimensions Not less than 33% of the overall dimensions of the dressing.

Weight per unit area Not less than 34 g m⁻², Appendix XX D1, Method II.

Labelling The label on the unit container, the label on the shelf container and the label on the outer transit container state, where applicable, that the pad has been dyed.

Silicone Foam Cavity Wound Dressing

Definition Silicone Foam Cavity Wound Dressing is a soft and slightly absorbent wound dressing of low adherence prepared from fluid silicone elastomer base and tin(II) 2-ethylhexanoate. It is prepared by mixing thoroughly for 15 seconds fluid silicone elastomer base (100 parts by volume) and tin(II) 2-ethylhexanoate (6 parts by volume), immediately before use, and allowing to expand to about four times its volume within the wound.

Fluid silicone elastomer base

Characteristics A pale brown, viscous fluid.

Identification A. The *infrared absorption spectrum*, Appendix II A, is concordant with the *reference spectrum* of silicone elastomer base.

B. The residue obtained on ignition in a platinum crucible yields the reaction characteristic of *silicates*, Appendix VI.