

CLAIMS

1. A heat sealable, retortable laminated foil for maintaining an aqueous solution, comprising:

an outer polymeric barrier layer formed of a biaxially drawn polyester film having a water vapour permeability less than 100 g/m².24 hr;

an intermediate non-polymeric barrier layer having a thickness less 50 microns;

an inner polymeric layer having an inward facing surface and an outward facing surface; and

a seal layer formed of a meltcast polyolefin copolymer film having a melting point between 130°C and 200 °C.

2. The heat sealable, retortable laminated foil according to claim 1, wherein the intermediate non-polymeric barrier layer comprises an aluminum foil with a thickness of less than 20 microns.

3. The heat sealable, retortable laminated foil of claim 2, wherein the aluminum foil comprises a slow rolled aluminum foil.

4. The heat sealable, retortable laminated foil according to claim 1, wherein the intermediate non-polymeric barrier layer comprises a fluoropolymer film.

5. The heat sealable, retortable laminated foil according to claim 1, wherein the intermediate non-polymeric barrier layer comprises one of a metal or a ceramic vacuum deposited onto the outward facing surface of the inner polymeric barrier layer, having a thickness of between 5 and 500 Å.

6. The heat sealable, retortable laminated foil according to claim 5, wherein the polymeric film has a tensile strength of at least 150Mpa and an elongation to break of less than 140%.
7. The heat sealable, retortable laminated foil according to any one of claims 1-6, wherein the inner polymeric barrier layer comprises a biaxially drawn polyester film with a water vapour permeability of less than 100 g/m².24 hr.
8. The heat sealable, retortable laminated foil according to claim 7, wherein the polymeric film has a tensile strength of at least 150Mpa and an elongation to break of less than 140%.
9. The heat sealable, retortable laminated foil according to any one of claims 1-8, wherein the laminated foil is heat sealed to itself to form a contact lens packaging in a form of a peelable sachet.
10. The heat sealable, retortable laminated foil according to any of claims 1-9, wherein:
the seal layer is configured to be separated from a sealed surface by cohesive failure of the seal layer in the presence of a 90 degree pull separation force less than 15 Newtons (N); and
said seal layer is approximately 35 microns thick.
11. The heat sealable, retortable laminated foil according to any of claims 1-10, wherein a seal created by sealing said seal layer to itself creates a heat seal having a heat seal strength of less than 20.0N/15mm.
12. An autoclaveable foil laminate capable of being peelably sealed to itself so as to form a pouch configured to store a hydrated contact lens and attendant hydration solution for prolonged periods, wherein said laminate comprises:

an outer polymeric barrier layer formed of a biaxially drawn polyester film having a water vapour permeability less than $100 \text{ g/m}^2 \cdot 24 \text{ hr}$, a tensile strength of at least 150Mpa and an elongation to break of less than 140%;

an intermediate non-polymeric barrier layer having a thickness less 50 microns, said intermediate non-polymeric barrier layer including a slow rolled aluminum foil;

an inner polymeric layer having an inward facing surface and an outward facing surface, the inner polymeric layer being a biaxially drawn polyester film having a water vapour permeability less than $100 \text{ g/m}^2 \cdot 24 \text{ hr}$, a tensile strength of at least 150Mpa and an elongation to break of less than 140%; and

a seal layer formed of a meltcast polyolefin copolymer film with a thickness of approximately 35 microns, said seal layer having a melting point between 130°C and 200°C .

13. The autoclaveable foil laminate according to claim 12, wherein the laminated foil is heat sealed to itself to form a contact lens packaging in a form of a peelable sachet, said peelable sachet having a seal created by sealing said seal layer to itself creates a heat seal having a heat seal strength of less than $20.0\text{N}/15\text{mm}$.

14. The autoclaveable foil laminate according to any of claims 12 or 13, wherein a junction between each of the outer polymeric barrier layer, the intermediate barrier layer, and the inner polymeric barrier layer is formed by a dry laminate process.