Claims

1. A polymeric, pressure-sensitive adhesive resulting 100 % from acrylate-based monomers, characterized in that at a layer thickness of 250 µm the adhesive has a water vapor permeability, as measured to ASTM E 96 by the upright cup method at a temperature of 23 °C and an atmospheric humidity of 50 % and to DIN EN 13726-2 at a temperature of 37 °C and an atmospheric humidity of 18 %, of at least 1000 g/m^2 over 24 h.

2. The polymeric, pressure-sensitive adhesive of claim 1, characterized in that it is prepared by UV polymerization.

3. The polymeric, pressure-sensitive adhesive of claim 1, characterized in that it is prepared by thermal polymerization.

4. The polymeric, pressure-sensitive adhesive of claim 1, characterized in that it is prepared by polymerization without using organic solvents.

5. The polymeric, pressure-sensitive adhesive of claim 1, characterized in that it is prepared by solvent-based polymerization.

6. The polymeric, pressure-sensitive adhesive of any of the preceding claims, for bonding to human skin.

7. The polymeric, pressure-sensitive adhesive of any of the preceding claims, characterized in that even after a wearing time of up to 24 h, it can be detached from the human skin without residues of

adhesive and with detachment of skin cells limited to not more than 5 % of the bonding area.

Claims

1. Use of a polymeric, adhesive material capable of bonding to human skin, wherein the adhesive material is resulting 100 % from acrylate-based monomers, and wherein the adhesive material at a layer thickness of 250 µm exhibits a water vapor permeability of at least 1000 g/m^2 over 24 h and wherein water vapor permeability is determined
   - according to ASTM E 96 by the "upright cup" method at a temperature of 23 °C and an atmospheric humidity of 50 % and
   - according to DIN EN 13726-2 at a temperature of 37 °C and an atmospheric humidity of 18 %.

2. The use according to claim 1, characterized in that the adhesive material is prepared by UV polymerization.

3. The use according to claim 1, characterized in that the adhesive material is prepared by thermal polymerization.

4. The use according to claim 1, characterized in that the adhesive material is prepared by polymerization without using organic solvents.

5. The use according to claim 1, characterized in that the adhesive material is prepared by solvent-based polymerization.

6. The use according to claim 1, characterized in that even after a wearing time of up to 24 h, the adhesive material can be detached from the human skin without residues of the adhesive material and with detachment of skin cells limited to not more than 5 % of the bonding area.

7. Polymeric adhesive material resulting from 100% acrylate-based monomers, viz.

50 parts by weight of polyethylene glycol methacrylate 550 and

50 parts by weight of 2-ethyl hexyl acrylate and

0.75 parts by weight of tripropylene glycol diacrylate,

wherein the adhesive material at a layer thickness of 250 µm exhibits a water vapor permeability of at least 1,000 g/m^2 over 24 hours and wherein water vapor permeability is determined

- according to ASTM E 96 by the "upright cup" method at a temperature of 23 °C and a humidity of 50 % and
- according to DIN EN 13726-2 at a temperature of 37 °C and a humidity of 18 %.

8. Polymeric adhesive material resulting from 100% acrylate-based monomers, viz.

50 parts by weight of polyethylene glycol methacrylate 550 and

50 parts by weight of 2-ethyl hexyl acrylate and

0.50 parts by weight of tripropylene glycol diacrylate,

wherein the adhesive material at a layer thickness of 250 µm exhibits a water vapor permeability of at least 1,000 g/m^2 over 24 hours and wherein water vapor permeability is determined

- according to ASTM E 96 by the "upright cup" method at a temperature of 23 °C and a humidity of 50 % and
- according to DIN EN 13726-2 at a temperature of 37 °C and a humidity of 18 %.

9. Polymeric adhesive material resulting from 100% acrylate-based monomers, viz.

50 parts by weight of polyethylene glycol

methacrylate 550 and
50 parts by weight of 2-ethyl hexyl acrylate and
0.25 parts by weight of tripropylene glycol diacrylate,

wherein the adhesive material at a layer thickness of 250 µm exhibits a water vapor permeability of at least 1,000 g/m^2 over 24 hours and wherein water vapor permeability is determined

- according to ASTM E 96 by the "upright cup" method at a temperature of 23 °C and a humidity of 50 % and
- according to DIN EN 13726-2 at a temperature of 37 °C and a humidity of 18 %.

10. Polymeric adhesive material resulting from 100% acrylate-based monomers, viz.
2 parts by weight of acrylic acid and
25 parts by weight of 2-ethyl hexyl acrylate and
25 parts by weight of polyethylene glycol methacrylate,
wherein the adhesive material at a layer thickness of 250 µm exhibits a water vapor permeability of at least 1,000 g/m^2 over 24 hours and wherein water vapor permeability is determined

- according to ASTM E 96 by the "upright cup" method at a temperature of 23 °C and a humidity of 50 % and
- according to DIN EN 13726-2 at a temperature of 37 °C and a humidity of 18 %.