CLAIMS

1. A pressure sensitive adhesive sheet in which a pressure sensitive adhesive composition is formed in a sheet shape,

the pressure sensitive adhesive composition being photocurable and comprising:

an acryl-based base polymer having a crosslinked structure;

a photopolymerizable polyfunctional compound having two or more photopolymerizable functional groups per molecule; and

a photopolymerization initiator,

wherein the acryl-based base polymer having a crosslinked structure is prepared by introducing 0.03 to 0.5 parts by weight of polyisocyanate crosslinker into 100 parts by weight of an acryl-based base polymer having a weight average molecular weight of 300,000 or more,

wherein a content of the photopolymerizable polyfunctional compound in the pressure sensitive adhesive composition is 1 to 6 parts by weight based on 100 parts by weight of the acryl-based base polymer, wherein of the 1 to 6 parts by weight of the photopolymerizable polyfunctional compound, 0.5 to 4 parts by weight thereof is a compound having three or more photopolymerizable functional groups per molecule,

wherein

the pressure sensitive adhesive sheet has a storage elastic modulus of 100 to 250 kPa at 25°C and 1 Hz, and has a gel fraction of 25 to 70%, and

after the pressure sensitive adhesive composition is photocured, the pressure sensitive adhesive sheet has a storage elastic modulus of 180 to 400 kPa at 25°C and 1 Hz.

2. The pressure sensitive adhesive sheet according to claim 1, wherein a storage elastic modulus at 25°C and 10^{-7} Hz is 4.5 kPa or more.

3. The pressure sensitive adhesive sheet according to claim 1 or 2, wherein after the pressure sensitive adhesive composition is photocured, a glass transition temperature of the photocured pressure sensitive adhesive sheet is −3°C or lower.

4. The pressure sensitive adhesive sheet according to any one of claims 1 to 3, wherein after the pressure sensitive adhesive composition is photocured, a gel fraction of the photocured

pressure sensitive adhesive sheet is 65 to 95%.

5. The pressure sensitive adhesive sheet according to any one of claims 1 to 4, wherein after the pressure sensitive adhesive composition is photocured, a loss tangent peak-top value of the photocured pressure sensitive adhesive sheet is 1.5 or more.

6. The pressure sensitive adhesive sheet according to any one of claims 1 to 5, wherein

an adhesive strength to glass is 4 N/10 mm or more, and

after the pressure sensitive adhesive composition is photocured, an adhesive strength to glass of 4 N/10 mm or more.

7. The pressure sensitive adhesive sheet according to any one of claims 1 to 6, wherein the acryl-based base polymer contains 5 to 30 parts by weight of a hydroxy group-containing monomer based on 100 parts by weight of the total of monomer components.

8. The pressure sensitive adhesive sheet according to any one of claims 1 to 7, wherein the pressure sensitive adhesive composition includes an acryl-based oligomer having a weight average molecular weight of 1000 to 30000.

9. A method for manufacturing the pressure sensitive adhesive sheet set forth in any one of claims 1 to 8, the method comprising:

applying a pressure sensitive adhesive composition onto a substrate in a sheet sheep, the pressure sensitive adhesive composition comprising an acryl-based base polymer, a crosslinker, and a photopolymerizable polyfunctional compound having two or more photopolymerizable functional groups per molecule; and

introducing into the acryl-based base polymer a crosslinked structure with the crosslinker.

10. A pressure sensitive adhesive sheet with a release film, comprising:

the pressure sensitive adhesive sheet according to any one of claims 1 to 8;

a first release film temporarily attached to a first principal surface of the pressure sensitive adhesive sheet; and

a second release film temporarily attached to a second principal surface of the pressure

sensitive adhesive sheet.

11. An optical film with a pressure sensitive adhesive layer, comprising:

an optical film;

a first pressure sensitive adhesive sheet stacked on a first principal surface of the optical film;

and a second pressure sensitive adhesive sheet stacked on a second principal surface of the optical film, wherein

the first pressure sensitive adhesive sheet is the pressure sensitive adhesive sheet according to any one of claims 1 to 8.

12. A method for manufacturing an image display device including a transparent member having a level difference portion arranged on a viewing-side surface,

the method comprising

bonding the pressure sensitive adhesive sheet according to any one of claims 1 to 8 and the transparent member, and then

irradiating the pressure sensitive adhesive sheet with an active ray to photocure the pressure sensitive adhesive composition in the pressure sensitive adhesive sheet.