What is claimed is:

1. A pressure sensitive adhesive composition comprising a polyurethane polymer that comprises the reaction product of an aliphatic polyisocyanate component, a polyol component, and a functional acid containing compound; wherein the polyol component has a total solubility parameter ranging from 10 to 14 $(cal/cm^3)^{1/2}$; and wherein the pressure sensitive adhesive has a G' less than 1 MPa at 25ºC and a frequency of 1 hertz.

2. The pressure sensitive adhesive composition of claim 1 wherein the polyol component has hydrogen bonding ranging from 3.5 to 6.

3. The pressure sensitive adhesive composition of claim 1 wherein the polyol component comprises a polyester polyol, a polycaprolactone polyol, a polycarbonate polyol, or a combination thereof.

4. The pressure sensitive adhesive composition of claim 1 wherein the polyol component, aliphatic isocyanate component, or combination thereof comprises at least one six-membered ring structure.

5. The pressure sensitive adhesive composition of claim 1 wherein the polyol component, aliphatic isocyanate component, or combination thereof comprises alkylene groups having at least 4, 5, or 6 carbon atoms.

6. The pressure sensitive adhesive composition of claim 1 wherein the aliphatic polyisocyanate component comprises a polyisocyanate that is a liquid at 25°C.

7. The pressure sensitive adhesive composition of claim 1 wherein the polyol component comprises repeat units of an ortho- or meta- phthalate, and an alkylene group comprising at least 4, 5 or 6 carbon atoms.

8. A pressure sensitive adhesive composition comprising

a polyurethane polymer, wherein the polyurethane polymer comprises the reaction product of an aliphatic polyisocyanate component comprising a polyisocyanate that is a liquid at 25°C;

a polyol component comprising repeat units of

an ortho- or meta- phthalate, and

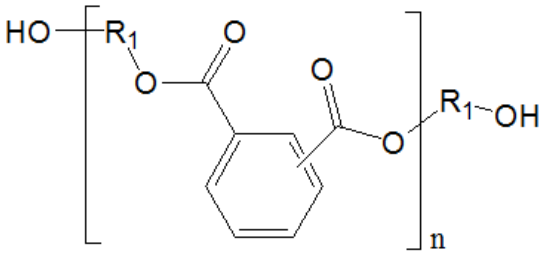
an alkylene group comprising at least 4 carbon atoms; and

a functional acid containing compound:

wherein the pressure sensitive adhesive has a G' less than 1 MPa at 25ºC and a frequency of 1 hertz.

9. The pressure sensitive adhesive composition of claim 8 wherein aliphatic polyisocyanate component comprises an aliphatic cyclic polyisocyanate.

10. The pressure sensitive adhesive composition of claim 8 wherein the polyol component comprises a polymeric polyester polyol having the structure



wherein R_1 is independently an alkylene group comprising at least 4 carbon atoms,
n is at least 2, and
the ester group substituents are bonded to the ring at an ortho- or meta- position.

11. The pressure sensitive adhesive composition of claim 8 wherein the polyol component further comprises a multi-functional polyol having greater than two hydroxyl groups.

12. The pressure sensitive adhesive composition of claim 8, wherein the pressure sensitive adhesive composition is in the form of a foam.

13. A laminating tape comprising

a substrate; and

a layer of a pressure sensitive adhesive composition according to claim 8 disposed on a major surface of the substrate.

14. An illuminated display device comprising a component bonded with the pressure sensitive adhesive of claim 8.

15. An article comprising

a substrate; and

a primer layer comprising the polyurethane polymer of claim 8.