

Pressure Sensitive Adhesive Tape



Pressure sensitive adhesive tape can be defined as a continuous flexible strip of cloth, paper, metal, plastic or foam coated on one or both sides with a permanently tacky adhesive at room temperature which will adhere to a variety of surfaces with light pressure (finger pressure) with no phase change (liquid to solid) and usually in roll form.

PSAs can be blends of natural or synthetic rubber and resin, acrylic, silicone or other polymer systems, with or without additives.

See the following pages for examples.



The Pressure Sensitive Tape Council is the North American trade association for tape manufacturers and affiliate suppliers, dedicated to helping the industry produce quality pressure sensitive adhesive tape products in the global marketplace. For more information, please visit www.pstc.org.

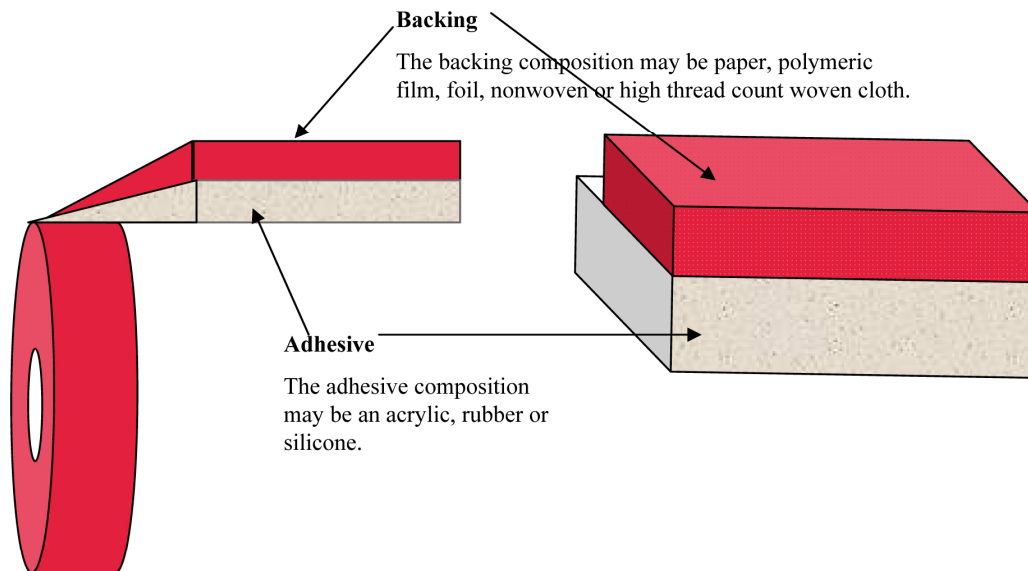
Single Coated

An adhesive is applied to only one side of the backing. The backing composition may be paper, polymeric film, foil, nonwoven or high thread count woven cloth. The adhesive composition may be an acrylic, rubber or silicone.

Examples of single coated tapes are electrical, masking, carton sealing and medical.

Single Coated Pressure Sensitive Adhesive Tape

Examples of single coated tapes are electrical, masking, carton sealing and medical tapes.



The construction of single coated tapes typically has a backing 1-10 mils thick and an adhesive thickness of 2-5 mils. The tape may be self-wound or lined with a paper or film release liner.

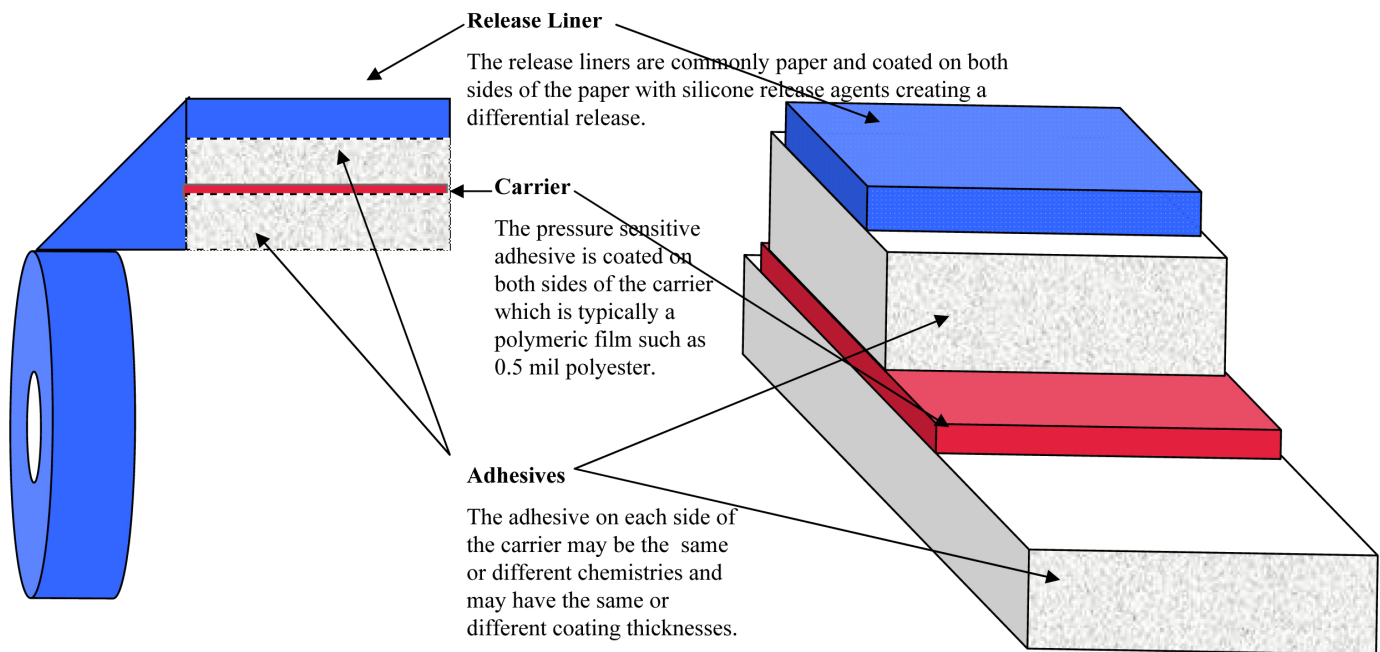
Double Coated

An adhesive is applied to both sides of a backing. The release liners are commonly paper and coated on both sides of the paper with silicone release agents creating a differential release. The pressure sensitive adhesive is coated on both sides of the carrier which is typically a polymeric film such as 0.5 mil polyester. The adhesive on each side of the carrier may be the same or different chemistries and may have the same or different coating thicknesses.

Examples of double coated tapes include mounting, medical and membrane switch.

Double Coated Pressure Sensitive Adhesive Tape

Examples of double coated tapes include mounting, medical and membrane switch tapes.



The construction of a double coated tape typically has an adhesive thickness ranging from 2-5 mils coated on each side of a polymeric film or nonwoven cloth and lined with a silicone (typical) differential release liner.

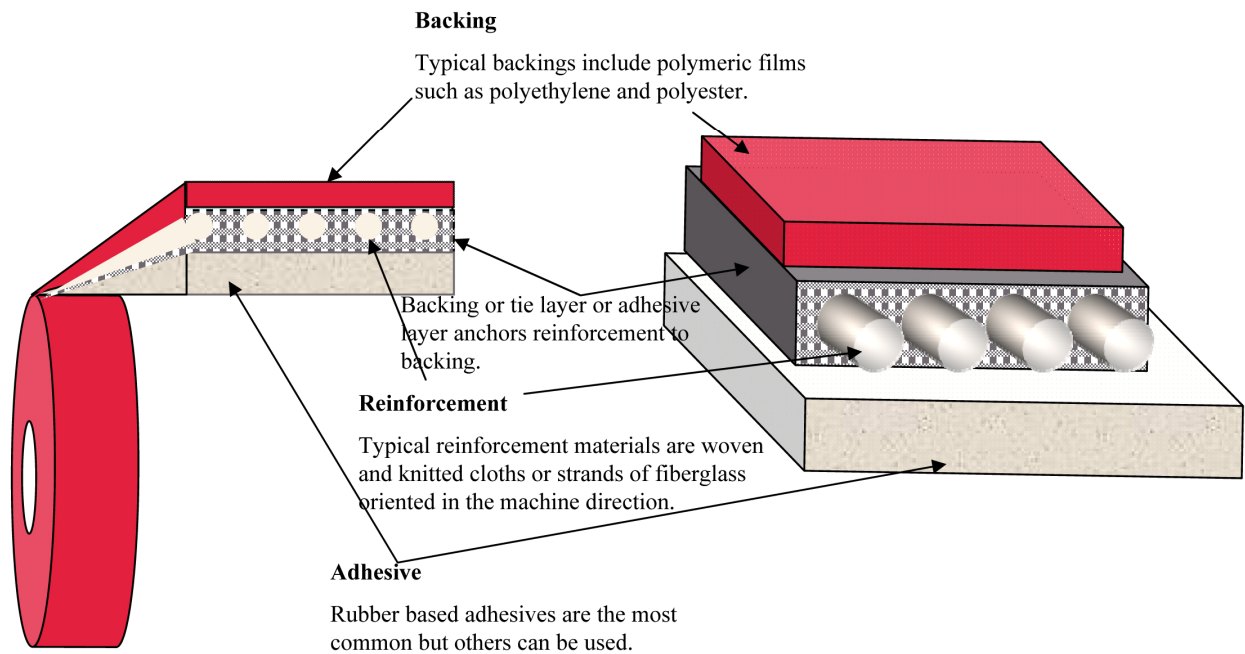
Reinforced

In addition to the backing and adhesive, these tapes include a reinforcement layer of woven or knitted cloth or glass strands parallel to the machine direction. Typical backings include polymeric films such as polyethylene and polyester. Rubber based adhesives are the most common but others can be used.

Examples of reinforced tapes are duct and filament.

Reinforced Pressure Sensitive Adhesive Tape

Examples of reinforced tapes are duct and filament tapes.



The construction of reinforced tapes normally has a backing layer 1-5 mils thick, a reinforcement layer of a woven or knitted cloth with a thread count of 8 x 15 to 30 x 50 or glass strands with a thread count of 15 to 50 parallel to the machine direction and an adhesive thickness ranging from 2 to 10 mils.

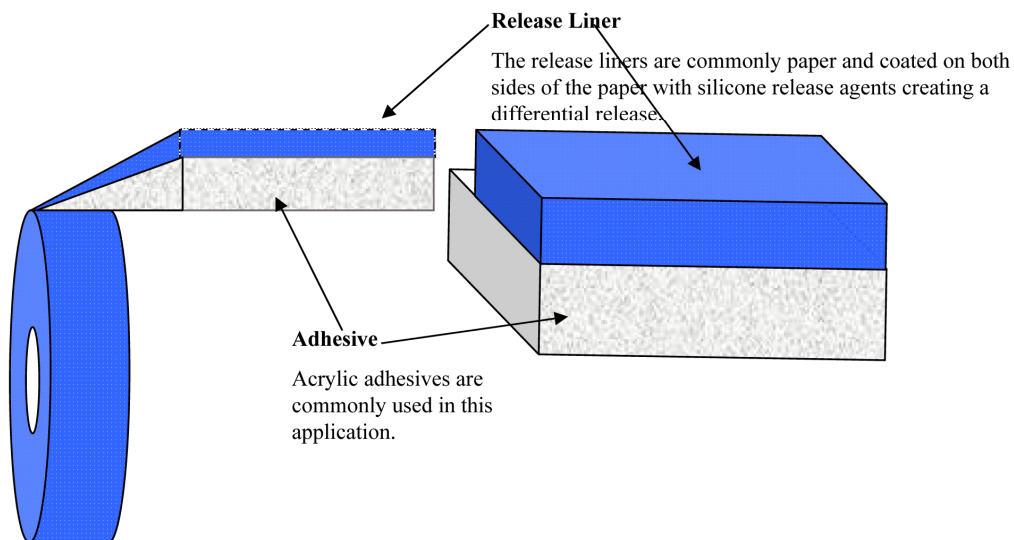
Unsupported

Unsupported PSA tapes (adhesive transfer tapes) consist of release liners and adhesives. The release liners are commonly paper and coated on both sides of the paper with silicone release agents creating a differential release. Acrylic adhesives are commonly used in this application.

Examples of unsupported tapes are envelope sealing, graphic attachment and splicing.

Unsupported Pressure Sensitive Adhesive Tape

Examples of unsupported tapes are envelope sealing, graphic attachment and splicing tapes.



The construction of an unsupported pressure sensitive adhesive tape typically has an adhesive thickness ranging from 2-5 mils and a differential release liner.