

CLAIMS

1. A stretch releasable adhesive article having first and second opposed major surfaces and a pull tab, wherein the adhesive article includes an extensible backing, a first adhesive applied to a first major face of the backing to define at least a portion of the first major surface, and a second adhesive applied to an opposed, second major face of the backing to define at least a portion of the second major face, and wherein the backing has an elongation at break of at least 50% to facilitate stretch release of the adhesive article, and wherein the adhesive article is configured to stretch release along both of the major surfaces, and wherein the adhesive article has a cross-sectional area as measured normal to the axis defined by a stretch release force applied to the pull tab during the stretch release process that has a width to thickness ratio of at least 30:1, and further wherein the adhesive article has a visible light transmission of at least about 90% and a haze of no greater than 5% as measured by ASTM Method D1003-07.
2. An adhesive article as defined in claim 1, wherein each of the first and second major surfaces has an adhesive area of at least about 10 square centimeters.
3. An adhesive article as defined in claim 1, wherein the adhesive article has a width of at least about 20 mm.
4. An adhesive article as defined in claim 1, wherein the adhesive article has an average thickness of at least about 25 microns (1 mil) and no greater than about 1300 microns (50 mils).
5. An adhesive article as defined in claim 1, wherein the first adhesive is a layer of pressure sensitive adhesive.

6. An adhesive article as defined in claim 5, wherein the backing has a cross-sectional area as measured normal to the axis defined by a stretch release force applied to the adhesive article during the stretch release process that has a width to thickness ratio of at least 30:1.

7. An adhesive article as defined in claim 6, wherein the backing is selected from the group consisting of polyolefins, vinyl copolymers, olefinic copolymers, urethane, styrenic block copolymers, acrylic polymers and copolymers, and combinations thereof.

8. An adhesive article as defined in claim 1, wherein the adhesive comprises at least one of natural rubber, polyisoprene, polybutadiene, polyurethane, styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/butylene-styrene, styrene-ethylene/propylene-styrene acrylic copolymer, acrylic block copolymer, silicone elastomeric polymers, and mixtures thereof.

9. An assembly, comprising:

(a) a first substrate having a major surface and a perimeter;

(b) a continuous stretch releasable adhesive article arranged on substantially all of the first substrate major surface, wherein the stretch releasable adhesive article includes a portion extending beyond the first substrate perimeter, thereby defining a pull tab, and further includes an extensible backing having an elongation at break of at least 50%; and

(c) a second substrate arranged on substantially all of the stretch release adhesive article opposite the first substrate;

wherein the stretch releasable adhesive article is extensible and has a first major axis defined by the direction of a stretch force applied to the adhesive article during the stretch release process to release the stretch releasable adhesive article from the first substrate and the second substrate, a length defined along the first major axis, a second major axis transverse to the first major axis, and a width defined along the second major axis, wherein at least a portion of at least one of the first and second major surfaces is adhesive, and wherein the ratio of the adhesive article width to the adhesive article thickness measured in an imaginary plane normal to the first major axis is at least about 30:1.

10. A method of temporarily adhesively bonding a substrate to a liquid crystal display comprising the step of arranging a double-sided stretch releasable adhesive article including an extensible backing between the substrate and the liquid crystal display with a portion of the stretch releasable adhesive article extending outwardly from between the substrate and the liquid crystal display, wherein the stretch releasable adhesive article has a visible light transmission of at least about 90% a haze of no greater than about 5% as measured by ASTM Method D1003-07, and further wherein the stretch releasable adhesive article is removable from the substrate and liquid crystal display only by stretching the backing.

11. A stretch releasable adhesive article comprising an extensible sheet having opposed major surfaces, the adhesive article includes an extensible backing, a first adhesive applied to a first major face of the backing to define at least a portion of the first major surface, and a second adhesive applied to an opposed, second major face of the backing to define at least a portion of the second major face, and wherein the backing has an elongation at break of at least 50% to facilitate stretch release of the adhesive article, and wherein the adhesive article is configured to stretch release along both of the major surfaces, wherein the sheet has a cross-sectional area as measured normal to the axis defined by a stretch release force applied to the adhesive article during the stretch release process that has a width to thickness ratio of at least 30:1, and further wherein the adhesive article has a visible light transmission of at least about 80% and a haze of no greater than 10% as measured by ASTM Method D1003-07.

12. An adhesive article as defined in claim 1, wherein the adhesive article exhibits a Stretch Release Force, as measured by the Zero Degree Peel Force test method, of at least 103N/cm^2 at both of the major surfaces.

13. An adhesive article as defined in claim 1, wherein the first and second adhesives are identical.

Claims

1. A stretch releasable adhesive article having first and second opposed major surfaces and a pull tab, wherein the adhesive article includes an extensible backing, a first adhesive applied to a first major face of the backing to define at least a portion of the first major surface, and a second adhesive applied to an opposed, second major face of the backing to define at least a portion of the second major face, and wherein the backing has an elongation at break of at least 50% to facilitate stretch release of the adhesive article, and wherein the adhesive article is stretch removable along both of the major surfaces, and wherein the adhesive article has a cross-sectional area as measured normal to the axis defined by a stretch release force applied to the pull tab during the stretch release process that has a width to thickness ratio of at least 30:1, and further wherein the adhesive article has a visible light transmission of at least about 80% and a haze of no greater than 10% as measured by ASTM Method D1003-07.
2. An adhesive article as defined in claim 1, wherein each of the first and second major surfaces has an adhesive area of at least about 10 square centimeters.
3. An adhesive article as defined in claim 1, wherein the adhesive article has a width of at least about 20 mm.
4. An adhesive article as defined in claim 1, wherein the adhesive article has an average thickness of at least about 25 microns (1 mil) and no greater than about 1300 microns (50 mils).
5. An adhesive article as defined in claim 1, wherein the first adhesive is a layer of pressure sensitive adhesive.
6. An adhesive article as defined in claim 1, wherein the backing has a cross-sectional area as measured normal to the axis defined by a stretch release force applied to the adhesive article during the stretch release process that has a width to thickness ratio of at least 30:1.

7. An adhesive article as defined in claim 1, wherein the backing is selected from the group consisting of polyolefins, vinyl copolymers, olefinic copolymers, urethane, styrenic block copolymers, acrylic polymers and copolymers, and combinations thereof.

8. An adhesive article as defined in claim 1, wherein the adhesive comprises at least one of natural rubber, polyisoprene, polybutadiene, polyurethane, styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/butylene-styrene, styrene-ethylene/propylene-styrene acrylic copolymer, acrylic block copolymer, silicone elastomeric polymers, and mixtures thereof.

9. An assembly, comprising:

the stretch releasable adhesive article of claim 1 arranged on substantially all of a first substrate major surface, wherein the stretch releasable adhesive article includes a portion extending beyond the first substrate perimeter, thereby defining a pull tab; and
a second substrate arranged on substantially all of the stretch release adhesive article opposite the first substrate.

10. The stretch releasable adhesive article of claim 1 wherein the adhesive article has a visible light transmission of at least about 90% and a haze of no greater than 5% as measured by ASTM Method D1003-07.

11. A method of temporarily adhesively bonding a substrate to a liquid crystal display comprising the steps of:

providing a substrate, a stretch releasable adhesive article of claim 10 and a liquid crystal display;

arranging the stretch releasable adhesive article of claim 10 between the substrate and the liquid crystal display with a portion of the stretch releasable adhesive article extending outwardly from between the substrate and the liquid crystal display and bonding the substrate and liquid crystal display to respective opposed faces of the stretch releasable article of claim 10; and

stretching the backing of the stretch releasable adhesive article of claim 10 by pulling the portion of the stretch releasable adhesive article extending outwardly from between the substrate and the

liquid crystal display to de-bond the substrate and the liquid crystal display from the stretch releasable adhesive article of claim 10.

12. An adhesive article as defined in claim 1, wherein the adhesive article exhibits a Stretch Release Force, as measured by the Zero Degree Peel Force test method, of at least 103N/cm^2 at both of the major surfaces.

13. An adhesive article as defined in claim 1, wherein the first and second adhesives are identical.