CLAIMS

1. An adhesive tape for semiconductor processing, comprising an adhesive layer and a tacky adhesive sheet laminated together,

wherein the adhesive layer has a tear strength (A) according to the right angled tear method defined in JIS K7128-3, of 0.8 MPa or more, and has a tear strength (C) according to the right angled tear method defined in JIS K7128-3 at -15°C, of 0.8 MPa or less.

2. The adhesive tape for semiconductor processing according to claim 1, wherein in the adhesive layer, a tear strength (B) obtainable when a cutting portion having a length of 1 mm from the tip of the right angled part is incised, on the center line passing through the tip of a right angled part of a test specimen according to the right angled tear method, is 0.5 MPa or more.

3. The adhesive tape for semiconductor processing according to claim 1 or 2, wherein the tacky adhesive sheet has an elongation percentage of 200% or higher.

4. The adhesive tape for semiconductor processing according to any one of claims 1 to 3, wherein when the tacky adhesive sheet is stretched to an elongation percentage of 200% and then is heated to 120°C, the elongation percentage becomes 120% or less.

5. The adhesive tape for semiconductor processing according to any one of claims 1 to 4, wherein the adhesive tape for semiconductor

processing is used in order to split the wafer attached on the adhesive layer and the adhesive layer, or only the adhesive layer, correspondingly to the individual chips by expanding the tacky adhesive sheet.

6. A method of manufacturing a semiconductor device produced using the adhesive tape for semiconductor processing according to any one of claims 1 to 5.