[Summary of the Invention]

[Problems to be solved by the Invention]

[0006]

Meanwhile, when the above-described heating treatment is performed on a sheet for workpiece processing, there is a problem in that the adhesive strength to the workpieces increases, making it difficult to separate the sheet for workpiece processing from the workpieces.

[0007]

In a sheet for workpiece processing, it is generally performed to facilitate the separation of the workpieces through configuring the pressure sensitive adhesive layer of an active energy ray-curable pressure sensitive adhesive and curing the pressure sensitive adhesive layer by active energy ray irradiation to reduce the adhesive strength to the workpieces.

[0008]

According to the sheet for workpiece processing using such an active energy ray-curable pressure sensitive adhesive, the adhesive strength to the workpieces can be reduced to some extent even when the above-described heating treatment is carried out. With conventional sheets for workpiece processing, however, even when an active energy ray-curable pressure sensitive adhesives is used, the adhesive strength cannot be reduced sufficiently to enable easy separation of the workpieces after heating treatment.

[0009]

Embodiments of the present invention provide a sheet for workpiece processing that enables easily separation of workpieces even when heating treatment is carried out.

[Means for solving the Problems]

[0010]

According to a first aspect of the present invention, there is provided a sheet for workpiece processing, including: a base material; and a pressure sensitive adhesive layer laminated on one side of the base material, the pressure sensitive adhesive layer being composed of an active energy ray-curable pressure sensitive adhesive that contains a hindered amine-based stabilizer.

[0011]

According to the first aspect of the present invention, the pressure sensitive adhesive layer is composed of an active energy ray-curable pressure sensitive adhesive that contains a hindered amine-based stabilizer, so that even after the heating treatment, the pressure sensitive adhesive layer can be well cured by active energy ray irradiation, and the adhesive strength can be sufficiently reduced accordingly. Therefore, with the above sheet for workpiece processing, the workpiece can be easily separated even after the heating treatment.

[0012]

In an embodiment of the first aspect of the present invention, the hindered amine-based stabilizer may be preferably an N-alkyl type hindered amine-based stabilizer.

[0013]

In an embodiment of the first aspect of the present invention, the active energy ray-curable pressure sensitive adhesive may be preferably formed from a pressure sensitive adhesive composition that contains an acrylic-based polymer having a side chain to which an active energy ray-curable group is introduced and the hindered amine-based stabilizer.

[0014]

In an embodiment of the first aspect of the present invention, the sheet for workpiece processing may be preferably used in a workpiece processing method comprising

a step of heating the sheet for workpiece processing in a state in which a workpiece or workpieces before or after processing are laminated on a side of the pressure sensitive adhesive layer opposite to the base material.

[0015]

According to a second aspect of the present invention, there is provided a method of manufacturing processed workpieces, including: a bonding step of bonding a workpiece to a surface of the pressure sensitive adhesive layer opposite to the base material in the sheet of the first aspect of the present invention; a heating step of subjecting the workpiece to a treatment that involves heating in a state in which the workpiece is laminated on the sheet for workpiece processing; and a dicing step of dicing, on the sheet for workpiece processing, the workpiece subjected to the treatment that involves heating, thereby obtaining processed workpieces that are singulated from the workpiece .

[Advantageous Effect of the Invention]

[0016]

The sheet for workpiece processing according to the above embodiments of the present invention allows the workpieces to be easily separated even when heating treatment is carried out.

[Embodiments for Carrying out the Invention]

[0017]

Hereinafter, one or more embodiments of the present invention will be described.

The sheet for workpiece processing according to the present embodiment includes a base material and a pressure sensitive adhesive layer laminated on one side of the base