surface (the upper surface in the case shown in the figure) of a transparent plastic film **2**; and a transparent conductive layer **4** is laminated to the other surface (the lower surface in the case shown in the figure) of the transparent plastic film **2** to which the fine irregularity layer **3** is not laminated. The expressions "upper surface", "lower surface", "upper"and "lower" as used when referring to the drawings are only for explanation and are independent of the upper-lower relationship at the time when the transparent conductive film **1** is practically used.

[**0041**] In the transparent conductive film **1** according to this embodiment, it is not always required to laminate the transparent conductive layer **4** to the surface of the transparent plastic film **2** on which the fine irregularities are not provided. Specifically, as shown in **FIG. 1**B, after laminating the fine irregularity layer **3** having fine irregularities on its exposed surface, to one surface (the lower surface in the case shown in the figure) of the transparent plastic film **2**, the transparent conductive layer **4** may be laminated to the fine irregularity layer **3** along its fine irregularities. In this case, the exposed surface of the transparent conductive layer **4** is roughened by the fine irregularities of the fine irregularity layer **3** because the transparent conductive layer **4** is extremely thin.

[**0042**] Further, in the transparent conductive film **1** according to this embodiment, if the transparent conductive layer **4** is laminated to the fine irregularity layer **3** along its fine irregularities, a transparent hard coat layer **5** may be laminated, as shown in **FIG. 2**, to the surface (the upper surface in the case shown in the figure) of the transparent plastic film **2** to which neither the fine irregularity layer **3** nor the transparent conductive layer **4** is laminated. In the transparent conductive film **1** shown in **FIG. 2**, the surface of the transparent plastic film **2** to which the transparent hard coat layer **5** is laminated is made smooth so that the exposed surface of the transparent hard coat layer **5** can be a mirror surface.

[**0043**] In the case where the fine irregularity layer **3** and the transparent conductive layer **4** are laminated to the upper and lower surfaces of the transparent plastic film **2**, respectively, as shown in **FIG. 1**A, the transparent hard coat layer **5** may be laminated to the fine irregularity layer **3** along its fine irregularities. Alternatively, a transparent hard coat layer having fine irregularities on its exposed surface may be directly laminated to the upper surface of the transparent plastic film **2** so that it can function as both the fine irregularity layer and the transparent hard coat layer.

[**0044**] In the transparent conductive films **1** shown in **FIGS. 1A, 1B** and **2**, the fine irregularities are provided as the surface structure of the fine irregularity layer **3** laminated to the surface of the transparent plastic film **2**. However, the fine irregularities may also be provided as the surface structure of the transparent plastic film **2** itself. In general, the transparent plastic film **2** is mass-produced as a film having a smooth surface. Therefore, from the viewpoint of convenience in the production process, it is preferable to laminate, by applying a resin composition or the like, a transparent resin layer to a transparent plastic film having a smooth surface, thereby forming the fine irregularities as the surface structure of the transparent resin layer.

[**0045**] It is preferable that the overall haze value of the transparent conductive film **1** be 8 or less. Since the lower limit of the haze value varies depending also upon the haze value of the transparent plastic film **2**, substrate, itself, it is not easy to sweepingly specify it; however, the haze value of the transparent conductive film **1** is practically 0.5 or more.

[**0046**] Preferably, the fine irregularities provided on at least one surface of the transparent plastic film **2** by means of the fine irregularity layer **3** or the like have a maximum height (Rmax) of 0.5 to 2.0 μm. More preferably, these fine irregularities have a maximum height (Rmax) of 0.5 to 2.0 μm and a ten-point mean roughness (Rz) of 0.35 to 1.5 μm. The maximum height (Rmax) herein refers to the distance between the deepest valley and the highest peak of the irregularities on a sampled portion with a specified length; and the ten-point mean roughness (Rz) herein refers to the average value of the heights of five highest peaks and the depths of five deepest valleys of the irregularities on a sampled portion with a specified length (see JIS B0601, "Surface Roughness —Definitions and Designation"). Plainly speaking, the height of fine irregularities that will not become the cause of blocking can be specified by the maximum height (Rmax), while the density of fine irregularities that will not become the cause of blocking can be specified by the ten-point mean roughness (Rz).

[**0047**] If the maximum height (Rmax) of the fine irregularities is less than 0.5 μm, the irregularities are excessively low in height, so that blocking tends to occur while processing the transparent plastic film by a roll-to-roll method (a method comprising: unwinding a continuous substrate such as a transparent plastic film; forming a transparent conductive layer on the substrate under vacuum by deposition, sputtering or the like; and winding, around a roll, the transparent conductive film obtained). Consequently, such a problem occurs that the transparent conductive layer cannot be smoothly and stably formed on the transparent plastic film.

[**0048**] On the other hand, if the transparent conductive film has fine irregularities whose maximum height (Rmax) is in excess of 2.0 μm, it greatly scatters extraneous light. As a result, a screen on which the transparent conductive film is placed appears white; and an image on the screen visible through the transparent conductive film thus has lowered contrast. Further, the image on the display visible through the transparent conductive film is greatly diffused due to the surface roughness of the film, so that it is seen with decreased sharpness. Furthermore, in the case where such a transparent conductive film is used for a touch panel or the like, short-circuit occurs depending upon the height of a spacer provided to separate two facing electrode layers in the touch panel.

[**0049**] When the fine irregularities have a ten-point mean roughness (Rz) of less than 0.35 μm, the density of the fine irregularities is excessively low, so that blocking tends to occur while processing the transparent plastic film by the above-described roll-to-roll method. As a result, such a problem occurs that the transparent conductive layer cannot be smoothly and stably formed on the transparent plastic film.

[**0050**] On the other hand, if the transparent conductive film has fine irregularities whose ten-point mean roughness (Rz) is in excess of 1.5 μm, it greatly scatters extraneous light. As a result, a screen on which the transparent conductive film is placed appears white; and an image on the screen