

## New Century (Tianjin) Polyimide Films Insulating Materials Co., LTD

## **TECHNICAL DATA SHEET**

## **Polyimide Film**

**NCPI** Polyimide Film is produced by cast method, which has High temperature resistance, radiation proof and excellent dielectric properties. It is applied to electrical insulations of the H class electric motor, equipments, and other electrical insulation.

**Table 1 Thickness and Tolerance:** 

| Thickness(um) | 12.5 | 25 | 40 | 50 | 75 | 100 | 125 | 175 | 200 |
|---------------|------|----|----|----|----|-----|-----|-----|-----|
| Tolerance(um) | +1   | +2 | +2 | +2 | +3 | +4  | +4  | +5  | +5  |
|               | -1   | -1 | -2 | -2 | -3 | -3  | -4  | -5  | -5  |

Note: thickness 125-225 um is also available; Tolernace could be adjusted according to customer requirements;

## **Table 2 Properties**

| No. | Item                                        |                             | Unit    | Standard              |      |              |              |       |  |
|-----|---------------------------------------------|-----------------------------|---------|-----------------------|------|--------------|--------------|-------|--|
| NO. |                                             |                             | Unit    | 25um                  | 40um | 50um         | 75um         | 100um |  |
| 1   | density                                     |                             | Kg/m³   | 1425±10               |      |              |              |       |  |
| 2   | tensile strength                            | horizontally                | Мра     | ≥165                  |      |              |              |       |  |
| 2   | tensile strength                            | vertically                  | Ινίρα   |                       |      |              |              |       |  |
| 3   | elongations                                 | horizontally and vertically | %       | ≥40 ≥50               |      |              |              |       |  |
| 4   | shrinkage rate                              | horizontally                | %       |                       |      | ≤0.35        |              |       |  |
| ۲   | 150℃ 400℃                                   | vertically                  | 7       | ≤2.5                  |      |              |              |       |  |
| 5   | industrial frequency electric strength      |                             | v/um    | >1                    | 240  | ≥200         | ≥180         | ≥160  |  |
| ر   | 48Hz $\sim$ 62Hz                            |                             | v/ uiii | > 2                   | 240  | <i></i> ≥200 | <i>≥</i> 180 | >100  |  |
| 6   | surface resistance,200 $^{\circ}\mathrm{C}$ |                             | Ω       | ≥1.0X10 <sup>14</sup> |      |              |              |       |  |
| 7   | volume resistance,200 $^\circ\mathbb{C}$    |                             | Ω.Μ     | ≥1.0X10 <sup>10</sup> |      |              |              |       |  |
| 8   | relative permittivity 48 $\sim$ 62Hz        |                             | -       | 3.5±0.4               |      |              |              |       |  |
| 9   | dielectric power factor 48 $\sim$ 62Hz      |                             | -       | ≤4.0X10 <sup>3</sup>  |      |              |              |       |  |
| 10  | temperature                                 |                             | -       | ≥180                  |      |              |              |       |  |







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★ For more information of Polyimide Film or other High Performance Materials, please contact us as following:

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