Characteristics of PET, Antistatic PVC, Acrylic and Polycarbonate

Provides three types of clear plates with superior transparency. In addition to the standard grade, antistatic grade is available. 4 colors, transparent, smoke brown, smoke grey and orange are available.

- PET

It has approx. 4 times stronger impact resistance than that of acrylic. Moreover it is an environment-friendly material, which generates no poisonous gas when burned. It is also cost effective.

- Antistatic PVC

Excesses in chemical resistance and flame resistance, and superior in cost-effectiveness among anti-static materials.

- Acrylic

Excesses in transparency, weather resistance and machinability, and is used widely for indoor and outdoor purposes, such as covers for industrial machinery, art display cases and signboards.

- Polycarbonate

The level of impact strength is ranked as the highest among the transparent resin materials (approx. 30 times higher than that of acrylic plates). It excels in resistance against high and low temperatures, and is widely used.

### Transparent Plastic Plate Characteristics

#### Materials

- **Polycarbonate**
  - Excels in transparency, weather resistance and machinability, and is used widely for indoor and outdoor purposes, such as covers for industrial machinery, art display cases and signboards.

- **Acrylic**
  - It has approx. 4 times stronger impact resistance than that of acrylic. Moreover, it is an environment-friendly material, which generates no harmful gases when burned.

- **PET**
  - Has better heat resistance and stronger mechanical strength than extruded plates.

#### Transmittance

Listed values are not guaranteed values but representative values. Also, extruded plates may have deflection at high temperature.

Extruded plates are more inexpensive than cast plates. Cast plates have better heat resistance and stronger mechanical strength than extruded plates.

#### Extrusion Type

- **Screw Joint Kits Standard Type**
  - Eccentric Nut Type

- **Double Joint Kits**
  - Center Joints
  - Pre-assembled Double Joint Kits

#### Part Number

- **Ordering Code**
  - CN=25
  - E=1mm Increment
  - 5≤CN≤50

- **Safe**
  - Minimum recommended

- **Eccentric Nut Type**
  - 25≤R≤50
  - 55≤C≤100

- **Center Joints**
  - 5≤CRA, CRB, CRC, CRD≤100

- **Pre-assembled Double Joint Kits**
  - 5≤R≤20
  - 25≤C≤50

#### Dimensions

- **Width (B)**
  - 0.5, 1, 2, 3, 4, 5, 8, 15, 20, 25, 30, 35, 40

- **Thickness (T)**
  - 0.5, 1, 1.5, 2, 3, 4, 5, 6, 8, 10

- **Corner F - Corner E - Corner J - Corner K**

#### Color

- **MISUMI** provides clear plates of four materials superior in transparency.

#### Chemical Resistance

- **Acrylic**
  - Excels in chemical resistance and flame resistance.

- **Polycarbonate**
  - Self-extinguishing

#### Other

- **Part Number**
  - A - B - T - Corner F - Corner E - Corner J - Corner K

### Transparent Plastic Plates

#### Specifications

- **Material**
  - PET
  - Acrylic (CAST)
  - PETG
  - Polycarbonate

#### Table

<table>
<thead>
<tr>
<th>Material</th>
<th>PET</th>
<th>Acrylic (CAST)</th>
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#### Notes

- Listed values are not guaranteed values but representative values.
- Values of elongation of polycarbonate and PET are % values measured by JIS K 7162/18/50.

### Characteristics of Acrylic Cast Plates and Extruded Plates

As for Acrylic Plates, cast plates made by cell-cast method and extruded plates are available. Cast plates have better heat resistance and stronger mechanical strength than extruded plates. Extruded plates are more inexpensive than cast plates.

When extruded plates come into contact with vaporizing liquid such as methanol and methylene chloride after they are thermal-processed (such as by laser machining), they may crack. Also, extruded plates may have deflection at high temperature.