

## Product technical instructions

Product brand: Piocreat\_PETG

Material No.: D3305050010

### Ingredients description section

Specification level: extrusion

Appearance color: transparent particles

Product usage: suitable for sheet blister packaging with thickness less than 1mm, used for packaging of hygiene, electronic appliances, etc.

### Processing conditions

| Zone 1(°C) | Zone 2 (°C)                                                                                                                                                                                                                            | Die head(°C) | Screw pressure (Kg) | Extrusion pressure (Kg) |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------|-------------------------|
| 230        | 245                                                                                                                                                                                                                                    | 250          | 90                  | 110                     |
| Remark     | The above are the reference temperature conditions for screw extrusion processing. Drying is required when the equipment does not have vacuum exhaust. The drying temperature is 70-80°C and the drying time is not less than 3 hours. |              |                     |                         |

### Performance test

| Project                                                | Test standards | PETG |
|--------------------------------------------------------|----------------|------|
| <b>Physical properties</b>                             |                |      |
| Density(g/cm <sup>3</sup> )                            | ISO 1183       | 1.27 |
| Melt index (220°C/2.16Kg)                              | ISO 1133       | 6.8  |
| Water absorption rate (%)23°C                          | ASTM D570      | 0.35 |
| <b>Mechanical properties</b>                           |                |      |
| Bending strength(MPa)                                  | ISO 178        | 70   |
| Flexural modulus (MPa)                                 | ISO 178        | 1961 |
| GB notched impact strength 23°C (KJ/m <sup>2</sup> )   | ISO 180        | 6.0  |
| ASTM notched impact strength 23°C (KJ/m <sup>2</sup> ) | ASTM D256      | 9.02 |
| Tensile strength(MPa)                                  | ISO 527        | 50   |
| Elongation at break(%)                                 | ISO 527        | 71   |
| Rockwell hardness(R)                                   | ASTM D785      | 113  |

## Performance test

| Project                          | Test standards | PETG |
|----------------------------------|----------------|------|
| <b>Optical properties</b>        |                |      |
| Transmittance(%)                 | ASTM D1003     | 90.7 |
| <b>Thermal properties</b>        |                |      |
| Heat distortion temperature (°C) | ASTM D648      | 75   |
| Vicat softening temperature (°C) | ASTM D1525     | 78   |

## Passed testing and certification

|          |                                |      |
|----------|--------------------------------|------|
| REACH    | 181 substances of high concern | pass |
| ROHS2.0  | ROHS10 items                   | pass |
| GB4806.6 | China food contact testing     | pass |

## Shenzhen Piocreat 3D Technology Co.,Ltd.

📍 19F, JinXiuHongDu Building, Meilong Blvd, Longhua Dist, Shenzhen, China 518131

☎ Tel: +86 0755-2103-9743 / +86 199 2521 7796

✉ Technical support: after@piocreat3d.com

🌐 www.piocreat3d.com

Note: Because the conditions of use and applicable laws may vary from place to place and from time to time, it is the customer's responsibility to determine whether the products and product information in this document are suitable for the customer's use, and ensure that your workplace and how you handle products comply with applicable laws and other government regulations. The company does not assume any responsibility or liability for the information in this document, nor does it provide any guarantee. All implied warranties under this document as to merchantability or fitness for a particular purpose are hereby expressly excluded.