

# 产品比较

## Technical Data

| 产品说明                         |   |                           |                               |                               |
|------------------------------|---|---------------------------|-------------------------------|-------------------------------|
| TOTAL Polypropylene PPH 5060 | <p>Polypropylene PPH 5060 is homopolymer with a Melt Flow Index of 6 g/10 min.</p> <p>Polypropylene PPH 5060 is specially suitable for tape extrusion for woven applications and for extrusion thermoforming.</p> <p>Polypropylene PPH 5060 is also a general purpose injection grade for moulding technical items</p>  |                           |                               |                               |
| Ducor® 1184 L                | <p>Ducor 1184 L is a propylene homopolymer for thermoforming applications. The product is provided with nucleating and anti-electrostatic agents. Ducor 1184L offers good stiffness and transparency. It exhibits an excellent processability and good wall thickness distribution of the thermoformed parts</p> <p>Food Contact Applications: This grade is in compliance with most regulations regarding food contact applications (EU, FDA). Specific information is available upon request.</p> |                           |                               |                               |
| POLIMAXX 1100NK              | <p>1100NK is a Polypropylene Homo-polymer for injection molding process with high flow and good stiffness characteristic. It is suitable for the production of general part, long path and thin wall, such as house-ware, closure, food container and etc. It also meets the F.D.A. requirement in the code of federal regulations in 21 CFR 177.1520 for food contact.</p>   |                           |                               |                               |
| POLIMAXX 1126NK              | <p>1126NK is a Polypropylene Homo-polymer resin for water quenched blow film with the characteristic of good process ability, high clarity containing slip and anti-block additive. It is specially designed for the production of general purpose film with high clarity. Typical applications are food packaging, shopping film bag. It also meets the F.D.A. requirement in the code of federal regulations in 21 CFR 177.1520 for food contact.</p>   |                           |                               |                               |
| 总体                           | TOTAL Polypropylene PPH 5060  | Ducor® 1184 L             | POLIMAXX 1100NK               | POLIMAXX 1126NK               |
| 生产商/供应商                      | • TOTAL Refining & Chemicals  | • Ducor Petrochemicals BV | • IRPC Public Company Limited | • IRPC Public Company Limited |
| 通用符号                         | • PP均聚物   | • PP均聚物                   | • PP均聚物                       | • PP均聚物                       |
| 添加剂                          | --  | • 成核剂<br>• 抗静电性           | --                            | • 抗结块剂<br>• 增滑剂               |



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| 总体            | TOTAL Polypropylene PPH 5060   | Ducor® 1184 L  | POLIMAXX 1100NK   | POLIMAXX 1126NK  |   |            |
|---------------|--|--|---|--|---|------------|
| 特性            | <ul style="list-style-type: none"> <li>均聚物</li> <li>通用</li> </ul>                                    | <ul style="list-style-type: none"> <li>成核的</li> <li>刚性, 良好</li> <li>均聚物</li> <li>抗静电性</li> <li>可加工性, 良好</li> <li>清晰度, 高</li> <li>食品接触的合规性</li> </ul> | <ul style="list-style-type: none"> <li>刚性, 良好</li> <li>均聚物</li> <li>流动性高</li> <li>食品接触的合规性</li> </ul>   | <ul style="list-style-type: none"> <li>光滑性</li> <li>均聚物</li> <li>抗结块性</li> <li>可加工性, 良好</li> <li>清晰度, 高</li> <li>食品接触的合规性</li> </ul> |   |            |
| 用途            | <ul style="list-style-type: none"> <li>Thermoforming Applications</li> <li>带子</li> <li>通用</li> </ul> | <ul style="list-style-type: none"> <li>Thermoforming Applications</li> <li>包装</li> </ul>   | <ul style="list-style-type: none"> <li>薄壁部件</li> <li>家用货品</li> <li>食品容器</li> <li>外壳</li> </ul>  | <ul style="list-style-type: none"> <li>薄膜</li> <li>袋子</li> <li>食品包装</li> </ul>   |   |            |
| 机构评级          | <ul style="list-style-type: none"> <li>EC 1907/2006 (REACH)</li> </ul>                               | <ul style="list-style-type: none"> <li>EC 1907/2006 (REACH)</li> </ul>   | <ul style="list-style-type: none"> <li>EC 1907/2006 (REACH)</li> <li>EC 1935/2004</li> <li>EN 71-3</li> <li>EU 2000/53/EC</li> <li>EU 2002/96/EC (WEEE)</li> <li>EU 2005/84/EC</li> <li>EU 94/62/EC</li> <li>FDA 21 CFR 176.170(c), Table 1</li> <li>FDA 21 CFR 176.170(c), 表 2</li> <li>FDA 21 CFR 177.1520(a) 1 (i)</li> <li>FDA 21 CFR 177.1520(b)</li> <li>FDA 21 CFR 177.1520(c) 1.1a</li> <li>欧洲 10/1/2011 12:00:00 AM</li> </ul> | <ul style="list-style-type: none"> <li>FDA 21 CFR 177.1520</li> </ul>  | <ul style="list-style-type: none"> <li>FDA 21 CFR 177.1520</li> </ul> |            |
| RoHS 合规性      | <ul style="list-style-type: none"> <li>RoHS 合规</li> </ul>  | <ul style="list-style-type: none"> <li>RoHS 合规</li> </ul>  | <ul style="list-style-type: none"> <li>RoHS 合规</li> </ul>   | <ul style="list-style-type: none"> <li>RoHS 合规</li> </ul>  |   |            |
| 外观            | --   | <ul style="list-style-type: none"> <li>清晰/透明</li> </ul>  | --  | --   |   |            |
| 形式            | <ul style="list-style-type: none"> <li>粒子</li> </ul>   | --   | --  | --   |   |            |
| 加工方法          | <ul style="list-style-type: none"> <li>挤出</li> <li>热成型</li> <li>注射成型</li> </ul>                      | <ul style="list-style-type: none"> <li>热成型</li> </ul>  | <ul style="list-style-type: none"> <li>注射成型</li> </ul>  | <ul style="list-style-type: none"> <li>吹塑薄膜</li> </ul>   |   |            |
| 物理性能          | TOTAL Polypropylene PPH 5060   | Ducor® 1184 L  | POLIMAXX 1100NK   | POLIMAXX 1126NK  | 单位制   | 测试方法       |
| 密度            | 0.905  | 0.910  | --  | --   | g/cm <sup>3</sup>   | ISO 1183   |
| 表观密度          | 0.53   | --   | --  | --   | g/cm <sup>3</sup>   | ISO 1183   |
| 熔流率 (熔体流动速率)  |  |  |   |  |   |            |
| 230°C/2.16 kg | --   | --   | 11  | 11   | g/10 min  | ASTM D1238 |
| 230°C/2.16 kg | 6.0  | 5.5  | --  | --   | g/10 min  | ISO 1133   |



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| 机械性能            | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制               | 测试方法         |
|-----------------|------------------------------------|------------------|--------------------|--------------------|-------------------|--------------|
| 拉伸模量            | 1500                               | --               | --                 | --                 | MPa               | ISO 527-2    |
| --              | --                                 | 1600             | --                 | --                 | MPa               | ISO 527-2/1  |
| 抗张强度            |                                    |                  |                    |                    |                   |              |
| 屈服              | --                                 | --               | 36.0               | 35.0               | MPa               | ASTM D638    |
| 屈服              | 32.0                               | --               | --                 | --                 | MPa               | ISO 527-2    |
| 屈服              | --                                 | 36.0             | --                 | --                 | MPa               | ISO 527-2/50 |
| 伸长率             |                                    |                  |                    |                    |                   |              |
| 屈服              | --                                 | --               | 26                 | 29                 | %                 | ASTM D638    |
| 屈服              | 10                                 | --               | --                 | --                 | %                 | ISO 527-2    |
| 屈服              | --                                 | 9.0              | --                 | --                 | %                 | ISO 527-2/50 |
| 断裂              | --                                 | > 50             | --                 | --                 | %                 | ISO 527-2/50 |
| 弯曲模量            |                                    |                  |                    |                    |                   |              |
| 1% 正割           | --                                 | --               | 1500               | 1450               | MPa               | ASTM D790    |
| --              | 1400                               | --               | --                 | --                 | MPa               | ISO 178      |
| 冲击性能            | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制               | 测试方法         |
| 简支梁缺口冲击强度       |                                    |                  |                    |                    |                   |              |
| -30°C           | --                                 | 1.7              | --                 | --                 | kJ/m <sup>2</sup> | ISO 179/1eA  |
| 23°C            | --                                 | --               | 2.9                | 3.0                | kJ/m <sup>2</sup> | DIN 53453    |
| 23°C            | 5.0                                | --               | --                 | --                 | kJ/m <sup>2</sup> | ISO 179      |
| 23°C            | --                                 | 3.5              | --                 | --                 | kJ/m <sup>2</sup> | ISO 179/1eA  |
| 简支梁无缺口冲击强度      |                                    |                  |                    |                    |                   | ISO 179/1eU  |
| -30°C           | --                                 | 16               | --                 | --                 | kJ/m <sup>2</sup> |              |
| 23°C            | --                                 | 140              | --                 | --                 | kJ/m <sup>2</sup> |              |
| 悬臂梁缺口冲击强度       |                                    |                  |                    |                    |                   |              |
| -30°C           | --                                 | 1.5              | --                 | --                 | kJ/m <sup>2</sup> | ISO 180/1A   |
| 23°C            | 4.0                                | --               | --                 | --                 | kJ/m <sup>2</sup> | ISO 180      |
| 23°C            | --                                 | 3.5              | --                 | --                 | kJ/m <sup>2</sup> | ISO 180/1A   |
| 硬度              | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制               | 测试方法         |
| 洛氏硬度            |                                    |                  |                    |                    |                   |              |
| R 级             | --                                 | --               | 107                | 105                |                   | ASTM D785    |
| R 计秤            | 92                                 | --               | --                 | --                 |                   | ISO 2039-2   |
| 球压硬度 (H 358/30) | --                                 | 74.0             | --                 | --                 | MPa               | ISO 2039-1   |



| 热性能           | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制 | 测试方法        |
|---------------|------------------------------------|------------------|--------------------|--------------------|-----|-------------|
| 载荷下热变形温度      |                                    |                  |                    |                    |     |             |
| 0.45 MPa, 未退火 | --                                 | --               | 110                | 100                | °C  | ASTM D648   |
| 0.45 MPa, 未退火 | 100                                | 90.0             | --                 | --                 | °C  | ISO 75-2/B  |
| 1.8 MPa, 未退火  | 55.0                               | 55.0             | --                 | --                 | °C  | ISO 75-2/A  |
| 维卡软化温度        |                                    |                  |                    |                    |     |             |
| --            | 150                                | --               | --                 | --                 | °C  | ISO 306/A50 |
| --            | --                                 | 154              | --                 | --                 | °C  | ISO 306/A   |
| --            | 85.0                               | --               | --                 | --                 | °C  | ISO 306/B50 |
| --            | --                                 | 94.0             | --                 | --                 | °C  | ISO 306/B   |
| 熔融温度 ( DSC )  | 164                                | 163              | --                 | --                 | °C  | ISO 3146    |
| 光学性能          | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制 | 测试方法        |
| 雾度 (1000 μm)  | --                                 | 49               | --                 | --                 | %   | ASTM D1003  |
| 注射            | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制 |             |
| 加工 ( 熔体 ) 温度  | --                                 | --               | 190 到 240          | --                 | °C  |             |
| 挤出            | TOTAL<br>Polypropylene<br>PPH 5060 | Ducor®<br>1184 L | POLIMAXX<br>1100NK | POLIMAXX<br>1126NK | 单位制 |             |
| 熔体温度          | --                                 | --               | --                 | 180 到 220          | °C  |             |

