



中国石化  
SINOPEC

SINOPEC SHANGHAI PETROCHEMICAL COMPANY LIMITED

中国石化上海石油化工股份有限公司

Product Quality Certification

产品质量合格证

产品名称: 挤出管材类聚乙烯 (PE) 树脂  
Product Name  
产品牌号: PE P5703DC (YGH041T)  
Product  
产品批号: SPS76331J1  
Batch Number  
执行标准: Q/310116000126C025-2024  
Standards

采样地点: 成品混合槽BL710  
Sample Point  
采样时间: 2026-04-01 08:00  
Sample Date  
签发日期: 2026-04-04 17:08  
Date of issue  
记录编号: GSHSH-R-ZG-ZL-038-2020  
Record Number

| 分析项目<br>ANALYSIS ITEM                                                                                 | 质量指标<br>LIMITS                                    | 检测结果<br>RESULTS | 试验方法<br>TEST METHOD       |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------|---------------------------|
| 熔体质量流动速率MFR(5kg), g/10min<br>The melt mass-flow rate(5kg), g/10min                                    | 0.28±0.05                                         | 0.30            | GB/T 3682.1-2018 9        |
| 密度ρ (D法), g/cm <sup>3</sup><br>Density ρ (D method), g/cm <sup>3</sup>                                | 0.9600±0.0040                                     | 0.9607          | GB/T 1033.2-2010          |
| 拉伸性能<br>Tensile properties:<br>拉伸弹性模量Et, MPa<br>Modulus of elasticity in tension(Et), MPa             | ≥860                                              | 1.13E+03        | GB/T 1040.2-2022          |
| 拉伸屈服应力σ <sub>y</sub> , MPa<br>Tensile stress at yield(σ <sub>y</sub> ), MPa                           | ≥23.0                                             | 24.8            |                           |
| 拉伸断裂标称应变ε <sub>tB</sub> , %<br>Nominal tensile strain at break(ε <sub>tB</sub> ), %                   | ≥5.2×10 <sup>2</sup>                              | >600            |                           |
| 弯曲模量Ef, MPa<br>Bending modulus(Ef), MPa                                                               | 报告值<br>Report                                     | 1.23E+03        | GB/T 9341-2008            |
| 简支梁缺口冲击强度acA(23℃), kJ/m <sup>2</sup><br>Charpy notched impact strength (acA) (23℃), kJ/m <sup>2</sup> | ≥15                                               | 22              | GB/T 1043.1-2008          |
| 负荷变形温度Tf0.45, °C<br>Load deformation temperature(Tf0.45), °C                                          | ≥60                                               | 81              | GB/T 1634.2-2019          |
| 氧化诱导时间(210℃, Al), min<br>Oxidation induction time(210℃, Al), min                                      | ≥20.0                                             | 42.6            | GB/T 19466.6-2009         |
| 挥发分含量, mg/kg<br>Volatile content, mg/kg                                                               | ≤350                                              | 182             | GB/T 15558.1-2023 5.5     |
| 炭黑含量, %<br>Carbon black content, %                                                                    | 2.0~2.5                                           | 2.2             | GB/T 13021-2023 Method B2 |
| 炭黑分散, 级<br>Carbon black dispersion, grade                                                             | ≤3                                                | 1.0             | GB/T 18251-2019           |
| 灰分(质量分数), %<br>Ash, %(m/m)                                                                            | ≤0.080                                            | 0.028           | GB/T 9345.1-2008 5.3      |
| 微量金属元素含量<br>Trace metal element content:<br>铁, μg/g<br>Fe, μg/g                                       | ≤10                                               | <10             | GB/T 39994-2021           |
| 钙, μg/g<br>Ca, μg/g                                                                                   | ≤250                                              | 80              |                           |
| 静液压强度(80℃, 1000h)<br>Hydrostatic strength(80℃, 1000h)                                                 | 不破裂、不渗漏(5.4MPa)<br>No rupture or leakage (5.4MPa) | 不破裂、不渗漏(5.4MPa) | GB/T 6111-2018            |

|                                                                                           |                                                                     |                                       |                     |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------|
| 耐慢速裂纹增长(80℃, 500h)<br>Resistance to slow crack growth(80℃, 500h)                          | 不破裂、不渗漏<br>(0. 92MPa)<br>No rupture or leakage<br>(0. 92MPa)        | 不破裂、不渗漏<br>(0. 92MPa)                 | GB/T 18476-2019     |
| 耐快速裂纹扩展(RCP) (S4试验, 0℃), MPa<br>Resistant to rapid crack propagation(S4<br>test, 0℃), MPa | pc, S4≥MOP/2. 4-0. 072                                              | >1. 0                                 | GB/T 19280-2003     |
| 耐气体组分试验 (80℃, 环应力2MPa) , h<br>Gas component resistance test (80℃, Ring<br>stress 2MPa), h | ≥20                                                                 | >20                                   | GB/T 15558. 1 5. 14 |
| 焊接性能(对接熔接拉伸强度)<br>Welding performance (tensile strength of<br>butt fusion)                | 韧性: 通过, 脆性: 未通过<br>Toughness: Passed,<br>Brittleness: Not<br>Passed | 韧性: 通过                                | GB/T 15558. 1 5. 18 |
| 注:厂址:上海市金山区金一路48号                                                                         |                                                                     |                                       |                     |
| 判定结果<br>Judge                                                                             | 检查员<br>Inspector                                                    | 质量合格专用章<br>quality seal               |                     |
| 合格                                                                                        | 周宇                                                                  | 质量检验章                                 |                     |
| 制作人/Producer:周宇                                                                           |                                                                     | 制作日期/Production date:2026-04-04 17:08 |                     |