



中国石化
SINOPEC

TECHNICAL DATA SHEET

Product Name: **HDPE**

Product Grade: **PN049**

Product Description:

Sinopec HDPE pipe grade has broad or bimodal distribution of molecular weight. It has strong creep resistance and good balance of rigidity and toughness. It is very durable and has low sag when being processed. Pipes produced using this resin have good strength, rigidity and impact resistance and excellent property of SCG and RCP.

Physical Properties:

Typical performance index (Not Warranted Value)

| Item | Unit | Quality Index | Typical Value | Method | |
|---|-----------------------------------|---------------|---------------|-------------------|------------------|
| Appearance of Granules | Large & Small Granule | / kg | Report Value | 0 | SH/T 1541.1-2019 |
| | Colour Granule | / kg | ≤ 20 | 4 | |
| | Snakeskin Grain & Trailing Grains | / kg | Report Value | 7 | |
| Density (at 23 Degree) | g/cm ³ | 0.946-0.952 | 0.95 | GB/T 1033.2-2010 | |
| Melt Mass-Flow Rate (MFR) | g/ 10min | 0.2-0.35 | 0.24 | GB/T 3682-2018 | |
| Oxidation Induction Time (OIT, at 210 Degree) | min | ≥40 | 70.9 | GB/T 19466.6-2009 | |
| Tensile Stress at Yield | MPa | ≥ 21.0 | 13.1 | GB/T 1040.2-2006 | |
| Nominal Tensile Strain at Break | % | ≥ 350 | 561 | GB/T 1040.2-2006 | |
| Charpy Notched Impact Strength | kJ/m ² | ≥20 | 36.7 | GB/T 1043.1-2008 | |
| Flexural Modulus | MPa | ≥760 | 1106 | GB/T 9341-2008 | |
| Temperature of Deflection under Load | Degree | ≥50 | 77 | GB/T 1634.2-2004 | |
| Moisture Content | mg/ kg | ≤300 | 12 | SH/T 1770-2010 | |



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Product Characteristics:

- Strong creep resistance
- Good balance of rigidity and toughness

Manufacturer:

Zhongsha Refinery Co., Ltd.

Typical Applications:

HDPE pipe grade can be used in the production of pressure pipes, such as pressurized water pipes, fuel gas pipelines and other industrial pipes. It can also be used for making non-pressure pipes such as double-wall corrugated pipes, hollow-wall winding pipes, silicon-core pipes, agricultural irrigation pipes and aluminum-plastics compound pipes. In addition, through reactive extrusion (silane cross-linking), it can be used for producing crosslinked polyethylene pipes (PEX) for supplying cold and hot water.