

## 产品说明

Alathon L4904 is a bimodal, high molecular weight, high density polyethylene resin with excellent processability characteristics that meet the high performance requirements of demanding pressure pipe applications including gas distribution, industrial piping, gas gathering, municipal water service lines and sewers. L4904 is designed specifically to provide superb resistance to pipe failure by rapid crack propagation and slow crack growth mechanisms. When L4904 is compounded with an Equistar approved black at the correct loading (see page 2) this formula meets the following standards.

Plastics Pipe Institute (PPI) PE 4710.

PE 100 per PPI TR-4.

ASTM D 3350 Cell Classification 445574C and 445576C.

Chemical Resistance per ASTM D 2513 (see page 2)

NSF Standard 14 and Standard 61 for Potable Water Pipe and Fittings.

CSA B137.1 for pipe, tubing, and fittings for cold-water pressure services

## 总体

|                                              |                          |                         |             |
|----------------------------------------------|--------------------------|-------------------------|-------------|
| 材料状态                                         | 已商用：当前有效                 |                         |             |
| 供货地区                                         | 北美洲<br>南美洲               | 欧洲<br>亚太地区              |             |
| 性能特点                                         | 抗破裂性，良好                  | 可加工性，良好                 |             |
| 用途                                           | 管道系统                     |                         |             |
| 机构评级                                         | ASTM D 2513              | CSA B137.1              | PPI PE-100  |
|                                              | ASTM D 3350<br>PE445574C | NSF 14                  | PPI PE-4710 |
|                                              | ASTM D 3350<br>PE445576C | NSF 61                  | PPI TR-4    |
|                                              |                          |                         |             |
| 物理性能                                         | 额定值                      | 单位制                     | 测试方法        |
| 密度                                           |                          | 0.949 g/cm <sup>3</sup> | ASTM D1505  |
| 熔流率                                          |                          |                         | ASTM D1238  |
| -- <sup>2</sup>                              | 0.040                    | g/10 min                |             |
| -- <sup>3</sup>                              | 7.0                      | g/10 min                |             |
| 机械性能                                         | 额定值                      | 单位制                     | 测试方法        |
| 抗张强度                                         |                          |                         | ASTM D638   |
| 屈服                                           | 24.1                     | MPa                     |             |
| 断裂                                           | 35.2                     | MPa                     |             |
| 伸长率 (断裂)                                     | 800                      | %                       | ASTM D638   |
| 弯曲模量 - 2% 正割                                 | 1010                     | MPa                     | ASTM D790   |
| Notch Pipe Test <sup>4</sup> (80° C, 102 mm) | > 3.4                    | month                   | ISO 13479   |
| 抗快速裂缝扩展, Pc <sup>5</sup> (0° C, 102 mm)      | > 10.0                   | bar                     | ISO 13477   |
| 抗快速裂缝扩展, Tc <sup>6</sup> (102 mm) < -7       |                          | ° C                     | ISO 13477   |
| 液体静力学设计基础                                    |                          |                         | ASTM D2837  |

|                                               |         |       |            |
|-----------------------------------------------|---------|-------|------------|
| 23° C                                         | 11.0    | MPa   |            |
| 60° C                                         | 6.89    | MPa   |            |
| 蠕变断裂强度 <sup>7</sup> (-7° C)                   | > 8     | day   | ASTM D1598 |
| 热性能                                           | 额定值     | 单位制   | 测试方法       |
| 脆化温度                                          | < -60.0 | ° C   | ASTM D746  |
| 补充信息                                          | 额定值     | 单位制   | 测试方法       |
| Minimum Required Strength<br>(20° C)          | 10.0    | MPa   | ISO 12162  |
| PENT - at 2.4 MPA (80° C)                     | > 2.7   | month | ASTM F1473 |
| DSC Induction Temperature 250° C, ASTM D 3350 |         |       |            |