

# KYNAR® 740

Kynar® 树脂 是氟化热塑性塑料均聚物。

特性出色：耐化学腐蚀性、耐紫外线性、高阻隔特性、高纯度，良好的机械特性和热力学特性。

Kynar® 740 树脂 是一种标准的粒状颗粒，适用于管材和板材的挤出，以及模压成型和传递成型。

该产品通过了 NSF/ANSI/CAN 61 认证。

其粉末形态产品为 Kynar® 741 树脂。

| 性能                               | 价值              | 单位                     | 测试标准            |
|----------------------------------|-----------------|------------------------|-----------------|
| 流变性能                             |                 |                        |                 |
| 熔体体积流动速度                         | 1.1             | cm <sup>3</sup> /10min | ISO 1133        |
| 温度                               | 230             | °C                     | -               |
|                                  | 446             | °F                     | -               |
| 载荷                               | 5               | kg                     | -               |
|                                  | 11              | lb                     | -               |
| 熔融指数                             | 1.5 - 3         | g/10min                | ASTM D1238      |
| 温度                               | 230             | °C                     | -               |
| 负载                               | 5               | kg                     | -               |
| 模塑收缩率, 平行                        | 2.0             | %                      | ISO 294-4, 2577 |
| 模塑收缩率, 垂直                        | 2.0             | %                      | ISO 294-4, 2577 |
| 熔体粘度, 230°C, 100 s <sup>-1</sup> | 16 - 22         | kPoise                 | ASTM D3835      |
| 机械性能                             |                 |                        |                 |
| 拉伸模量                             | 1700            | MPa                    | ISO 527-1/-2    |
|                                  | 247000          | psi                    |                 |
| 拉伸模量, 73 °F                      | 1380 - 2310     | MPa                    | ASTM D638       |
|                                  | 200000 - 335000 | psi                    |                 |
| 屈服应力                             | 50              | MPa                    | ISO 527-1/-2    |
|                                  | 7250            | psi                    |                 |
| 屈服应力, 73 °F                      | 44.8 - 55.2     | MPa                    | ASTM D638       |
|                                  | 6500 - 8000     | psi                    |                 |
| 屈服伸长率                            | 7               | %                      | ISO 527-1/-2    |
| 屈服伸长率, 73 °F                     | 5 - 10          | %                      | ASTM D638       |
| 名义断裂伸长率                          | >50             | %                      | ISO 527-1/-2    |
| 断裂拉伸强度, 73 °F                    | 34.5 - 55.2     | MPa                    | ASTM D638       |
|                                  | 5000 - 8000     | psi                    |                 |
| 断裂伸长率, 73 °F                     | 20 - 100        | %                      | ASTM D638       |
| TABER耐摩耗性, CS 17 1000g:pad       | 5 - 9           | mg/100 cycles          | ASTM-G195-13A   |

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|                    |                 |          |                |
|--------------------|-----------------|----------|----------------|
| 肖氏硬度, D, 73 °F     | 76 - 80         | -        | ASTM D2240     |
| 弯曲模量, 73 °F        | 1380 - 2310     | MPa      | ASTM D790      |
|                    | 200000 - 335000 | psi      |                |
| 5%伸长率时弯曲强度, 73 °F  | 58.6 - 75.8     | MPa      | ASTM D790      |
|                    | 8500 - 11000    | psi      |                |
| 压缩强度, 73 °F        | 68.9 - 103      | MPa      | ASTM D695      |
|                    | 10000 - 15000   | psi      |                |
| 拉伸蠕变模量, 1h         | 1050            | MPa      | ISO 899-1      |
|                    | 152000          | psi      |                |
| 拉伸蠕变模量, 1000h      | 570             | MPa      | ISO 899-1      |
|                    | 82700           | psi      |                |
| 简支梁冲击强度, +23°C     | 244             | kJ/m²    | ISO 179/1eU    |
|                    | 116             | ftlb/in² |                |
| 简支梁冲击强度, -30°C     | 186             | kJ/m²    | ISO 179/1eU    |
|                    | 88.5            | ftlb/in² |                |
| 简支梁缺口冲击强度, +23°C   | 14              | kJ/m²    | ISO 179/1eA    |
|                    | 6.66            | ftlb/in² |                |
| 简支梁缺口冲击强度, -30°C   | 5               | kJ/m²    | ISO 179/1eA    |
|                    | 2.38            | ftlb/in² |                |
| 冲击强度, 73 °F        | 1.07 - 4.27     | kJ/m     | ASTM D256      |
|                    | 20 - 80         | ftlb/in  |                |
| 梁缺口冲击强度, 73 °F     | 0.0961 - 0.214  | kJ/m     | ASTM D256      |
|                    | 1.8 - 4         | ftlb/in  |                |
| 摩擦系数, 静态vs.钢, 73°F | 0.2             | -        | ASTM D1894     |
| 摩擦系数, 动态vs.钢, 73°F | 0.14            | -        | ASTM D1894     |
| 热性能                |                 |          |                |
| 熔融温度, 10°C/min     | 168             | °C       | ISO 11357-1/-3 |
| 熔点                 | 165 - 172       | °C       | ASTM D3418     |
| 玻璃化转变温度, 10°C/min  | -40             | °C       | ISO 11357-1/-2 |
| 玻璃化转变温度 (Tg)       | -40.6 - -38.3   | °C       | ASTM D7028     |
|                    | -41 - -37       | °F       |                |
| 温度额定值为             | 150             | °C       | UL RTI         |
|                    | 302             | °F       |                |
| 热变形温度, 1.80 MPa    | 105             | °C       | ISO 75-1/-2    |
|                    | 221             | °F       |                |

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|                           |             |                                      |                 |
|---------------------------|-------------|--------------------------------------|-----------------|
| 热变形温度, 264 Psi, 248 °F/hr | 105 - 115   | °C                                   | ASTM D648       |
|                           | 221 - 239   | °F                                   |                 |
| 热变形温度, 0.45 MPa           | 135         | °C                                   | ISO 75-1/-2     |
|                           | 275         | °F                                   |                 |
| 热变形温度, 66 Psi, 248 °F/hr  | 125 - 140   | °C                                   | ASTM D648       |
|                           | 257 - 284   | °F                                   |                 |
| 维卡软化温度, 50°C/h 50N        | 135         | °C                                   | ISO 306         |
|                           | 275         | °F                                   |                 |
| 线性热膨胀系数, 平行               | 150         | E-6/K                                | ISO 11359-1/-2  |
| 热释放速率, 73 °F              | 11.9 - 14.4 | 10E-5/<br>°C                         | ASTM D696       |
|                           | 6.6 - 8     | 10E-5/<br>°F                         |                 |
| 阻燃等级, 1.5mm厚              | V-0         | class                                | IEC 60695-11-10 |
| 测试用试样的厚度                  | 1.6         | mm                                   | -               |
|                           | 0.0630      | in                                   |                 |
| Yellow Card 现存            | 是的          | -                                    | -               |
| 阻燃等级, 厚度h                 | V-0         | class                                | IEC 60695-11-10 |
| 测试用试样的厚度                  | 0.8         | mm                                   | -               |
|                           | 0.0315      | in                                   |                 |
| 氧指数                       | 43          | %                                    | ISO 4589-1/-2   |
| 氧指数                       | 44          | %                                    | ASTM D2863      |
| 热导率                       | 0.17 - 0.19 | W/(m<br>K)                           | ASTM D433       |
|                           | 1.18 - 1.32 | BTU in<br>(hr ft <sup>2</sup><br>°F) |                 |
| 比热                        | 745 - 958   | J/(kg K)                             | DSC             |
|                           | 0.28 - 0.36 | BTU/(l<br>b·°F)                      |                 |
| 在空气中热分解                   | 375         | °C                                   | 1% wt. loss     |
|                           | 707         | °F                                   |                 |
| 在氮气中热分解                   | 410         | °C                                   | 1% wt. loss     |
|                           | 770         | °F                                   |                 |
| 相对热指数, 机械的                | 150         | °C                                   | UL 746B         |
|                           | 302         | °F                                   |                 |
| 相对热指数, 电气                 | 150         | °C                                   | UL 746B         |
|                           | 302         | °F                                   |                 |
| 电性能                       |             |                                      |                 |
| 相对介电常数, 100Hz             | 11          | -                                    | IEC 60250       |
| 相对介电常数, 1MHz              | 8           | -                                    | IEC 60250       |

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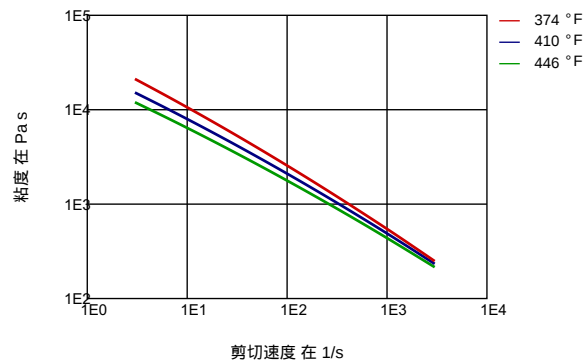
|                                   |              |                |               |
|-----------------------------------|--------------|----------------|---------------|
| 电介质常数, 1 kHz                      | 4.5 - 9.5    | -              | ASTM D150     |
| 介质损耗因子, 100Hz                     | 260          | E-4            | IEC 60250     |
| 介质损耗因子, 1MHz                      | 2310         | E-4            | IEC 60250     |
| 耗散因素, 100 kHz                     | 0.01 - 0.21  | -              | ASTM D150     |
| 体积电阻率                             | 2E12         | Ohm*<br>m      | IEC 62631-3-1 |
| 体积电阻率, DC 68 °F, 65% R.H.         | 2E14         | Ohm*<br>cm     | ASTM D257     |
| 表面电阻率                             | >1E15        | Ohm            | IEC 62631-3-2 |
| 介电强度                              | 21<br>533    | kV/m<br>kV/in  | IEC 60243-1   |
| 电介质强度, 73°F                       | 1.7          | kV/mil         | ASTM D149     |
| 相对耐漏电起痕指数, CTI                    | 600          | -              | IEC 60112     |
| 其它性能                              |              |                |               |
| 吸水性, 23°C, immersion, equilibrium | 0.03         | %              | ISO 62        |
| 吸水性                               | 0.01 - 0.03  | %              | ASTM D570     |
| 吸湿性                               | 0.015        | %              | ISO 62        |
| 密度                                | 1780<br>1.78 | kg/m³<br>g/cm³ | ISO 1183      |
| 比重, 73 °F                         | 1.77 - 1.79  | -              | ASTM D792     |
| 光学特性                              |              |                |               |
| Refractive Index @ sodium D line  | 1.42         | -              | ASTM D542     |

### 主要应用

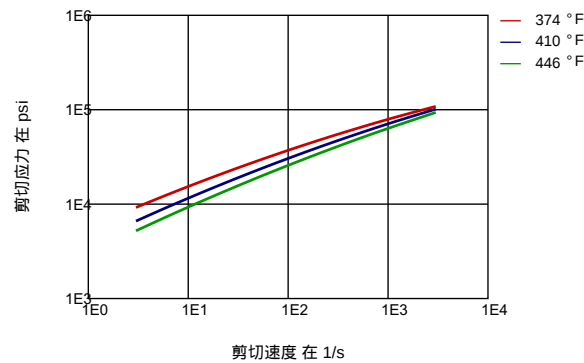
- 化工行业中的防腐蚀应用
- 涂料（涂装，共挤）
- 海上
- 电线电缆

图表

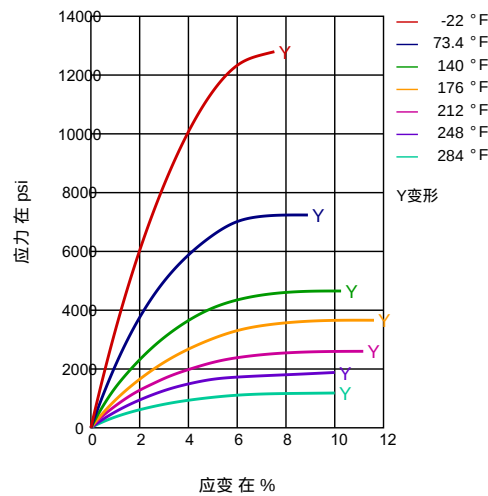
粘度 - 剪切速度



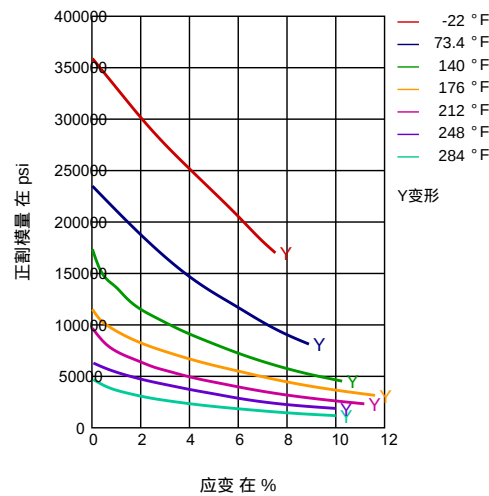
剪切应力 - 剪切速度



应力 - 应变.

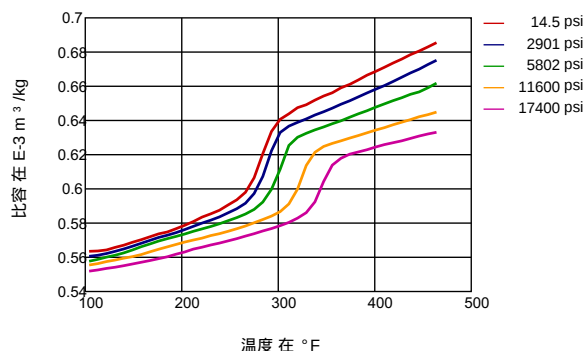


正割模量 - 应变.



# KYNAR® 740

## 比容 - 温度(PVT)



|                                                        |                                                                                                                                                |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>加工方法</b><br>异型材挤出成型, 片材挤出成型, 其它挤出成型,<br>传递模塑成型, 热成型 | <b>Headquarters:</b><br>Arkema France<br>420 rue d'Estienne d'Orves 92705<br>Colombes Cedex France<br>T +33 (0)1 49 00 80 80<br>hpp.arkema.com |
| <b>供货形式</b><br>粒料                                      | Arkema Inc. – High Performance<br>Polymers<br>900 First Avenue<br>King of Prussia, PA 19406<br>Tel.: +1 610 205 7000<br>hpp.arkema.com         |
| <b>特殊性能</b><br>热稳定, 光稳定                                |                                                                                                                                                |
| <b>地区供应</b><br>北美, 欧洲, 亚太, 中南美洲, 中东/非洲                 |                                                                                                                                                |

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