# KYNAR FLEX®
# 2800-00

Kynar Flex® resins are fluorinated thermoplastic copolymers.

Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermo-mechanical properties.

Kynar Flex® 2800-00 resin is a standard grade of granules, compared to the homopolymer grades, which exhibits a lower modulus, a better resistance to stress cracking in alkaline and oxidizing media, and a lower melting point.

For cable coating, extrusion of tube and plaque, compression molding of bulky parts.

Additional characteristics:
- Easily processed using conventional equipment
- Excellent thermal stability
- Retains properties after aging
- Pigmentable
- UL RTI temperature rating 125ºC
- Radiation crosslinking

UL Yellow Card

| 特性 | 値 | 単位 | テスト基準 |
|---|---|---|---|
| レオロジー特性 | | | |
| メルトボリュームレイト | 0.5 | cm³/10min | ISO 1133 |
| 温度 | 230 | °C | - |
| | 446 | °F | |
| 荷重 | 5 | kg | - |
| | 11 | lb | |
| メルトフローレイト | 3 - 8 | g/10min | ASTM D1238 |
| 温度 | 230 | °C | - |
| 荷重 | 12.5 | kg | - |
| 溶融粘度, 230°C, 100 $s^{-1}$ | 22 - 27 | kPoise | ASTM D3835 |
| 機械的特性 | | | |
| 引張弾性率 | 700 | MPa | ISO 527-1/-2 |
| | 102000 | psi | |
| 引張弾性率, 73 °F | 552 - 896 | MPa | ASTM D638 |
| | 80000 - 130000 | psi | |
| 降伏応力 | 27 | MPa | ISO 527-1/-2 |
| | 3920 | psi | |
| 降伏応力, 73 °F | 20 - 34.5 | MPa | ASTM D638 |
| | 2900 - 5000 | psi | |

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| | | | |
|---|---|---|---|
| 降伏ひずみ | 15 | % | ISO 527-1/-2 |
| 降伏点伸び, 73 °F | 10 - 20 | % | ASTM D638 |
| 破壊呼びひずみ | >50 | % | ISO 527-1/-2 |
| 破壊応力, 73 °F | 17.2 - 34.5 | MPa | ASTM D638 |
| | 2500 - 5000 | psi | |
| 破断伸び, 73 °F | 100 - 300 | % | ASTM D638 |
| Taber 耐摩耗性, CS 17 1000g:pad | 16 - 19 | mg/1000 cycles | ASTM-G195-13A |
| ショア硬さ, D, 73 °F | 60 - 70 | - | ASTM D2240 |
| 曲げ弾性率, 73 °F | 483 - 758 | MPa | ASTM D790 |
| | 70000 - 110000 | psi | |
| 5%伸び時の曲げ強度, 73 °F | 20.7 - 34.5 | MPa | ASTM D790 |
| | 3000 - 5000 | psi | |
| 圧縮強度, 73 °F | 31 - 41.4 | MPa | ASTM D695 |
| | 4500 - 6000 | psi | |
| ノッチ付きシャルピー衝撃強さ, +23°C | 未破壊 | kJ/m² | ISO 179/1eA |
| ノッチ付きシャルピー衝撃強さ, -30°C | 5 | kJ/m² | ISO 179/1eA |
| | 2.38 | ftlb/in² | |
| 衝撃試験, 73 °F | 未破壊 | kJ/m | ASTM D256 |
| ノッチ付き衝撃強さ, 73 °F | 0.534 - 1.07 | kJ/m | ASTM D256 |
| | 10 - 20 | ftlb/in | |
| 摩擦係数, 静力学対鋼, 73°F | 0.33 | - | ASTM D1894 |
| 摩擦係数, 動的対鋼, 73°F | 0.33 | - | ASTM D1894 |
| 熱的特性 | | | |
| 溶融温度, 10°C/min | 143 | °C | ISO 11357-1/-3 |
| 溶融温度 | 140 - 145 | °C | ASTM D3418 |
| ガラス転移点, 10°C/min | -40 | °C | ISO 11357-1/-2 |
| ガラス転移温度 (Tg) | -41.1 - -39.4 | °C | ASTM D7028 |
| | -42 - -39 | °F | |
| 温度定格 | 130 | °C | UL RTI |
| | 266 | °F | |
| 荷重たわみ温度, 1.80 MPa | 48 | °C | ISO 75-1/-2 |
| | 118 | °F | |
| 荷重たわみ温度, 264 Psi, 248 °F/hr | 40 - 55 | °C | ASTM D648 |
| | 104 - 131 | °F | |

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|---|---|---|---|
| 荷重たわみ温度, 0.45 MPa | 68 | °C | ISO 75-1/-2 |
| | 154 | °F | |
| 荷重たわみ温度, 66 Psi, 248 °F/hr | 60 - 75 | °C | ASTM D648 |
| | 140 - 167 | °F | |
| ビカット軟化温度, 50°C/h 50N | 79 | °C | ISO 306 |
| | 174 | °F | |
| 線膨張係数, 平行 | 160 | E-6/K | ISO 11359-1/-2 |
| 線膨張係数, 73 °F | 12.6 - 18.5 | 10E-5/°C | ASTM D696 |
| | 7 - 10.3 | 10E-5/°F | |
| 1.5mm厚さでの燃焼性 | V-0 | class | IEC 60695-11-10 |
| 試験片の厚さ | 1.5 | mm | - |
| | 0.0591 | in | |
| Yellow Card 可用 | はい | - | - |
| 厚さhでの燃焼性 | V-0 | class | IEC 60695-11-10 |
| 試験片の厚さ | 0.8 | mm | - |
| | 0.0315 | in | |
| 酸素指数 | 43 | % | ISO 4589-1/-2 |
| 酸素指数 | 42 | % | ASTM D2863 |
| 熱伝導率 | 0.144 - 0.18 | W/(m K) | ASTM D433 |
| | 1 - 1.25 | BTU in/(hr ft2 F) | |
| 比熱 | 745 - 958 | J/(kg K) | DSC |
| | 0.28 - 0.36 | BTU/(lb·°F) | |
| 空気中の熱分解 | 375 | °C | 1% wt. loss |
| | 707 | °F | |
| 窒素中での熱分解 | 410 | °C | 1% wt. loss |
| | 770 | °F | |
| 相対熱指数, 機械的 | 130 | °C | UL 746B |
| | 266 | °F | |
| 相対熱指数, 電気 | 130 | °C | UL 746B |
| | 266 | °F | |
| 電気的特性. | | | |
| 比誘電率, 100Hz | 11 | - | IEC 60250 |
| 比誘電率, 1MHz | 7 | - | IEC 60250 |
| 比誘電率, 1 kHz | 3.5 - 10.6 | - | ASTM D150 |
| 誘電正接, 100Hz | 520 | E-4 | IEC 60250 |

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| | | | |
|---|---|---|---|
| 誘電正接, 1MHz | 2330 | E-4 | IEC 60250 |
| 誘電正接, 100 kHz | 0.02 - 0.21 | - | ASTM D150 |
| 体積抵抗率 | 2E12 | Ohm*m | IEC 62631-3-1 |
| 体積抵抗率, DC 68 °F, 65% R.H. | 2E14 | Ohm*cm | ASTM D257 |
| 表面抵抗率, 73 °F | 5.1E11 - 5.3E11 | Ohm per square | ASTM D257 |
| 耐電圧, 73°F | 1.3 - 1.5 | kV/mil | ASTM D149 |
| その他の特性. | | | |
| 吸水率, 23°C, immersion, equilibrium | 0.03 | % | ISO 62 |
| 吸水率 | 0.03 - 0.05 | % | ASTM D570 |
| 吸湿率 | 0.015 | % | ISO 62 |
| 密度 | 1780 | kg/m³ | ISO 1183 |
| | 1.78 | g/cm³ | |
| 比重, 73 °F | 1.77 - 1.8 | - | ASTM D792 |
| 光学特性 | | | |
| Refractive Index @ sodium D line | 1.41 | - | ASTM D542 |

Main applications:

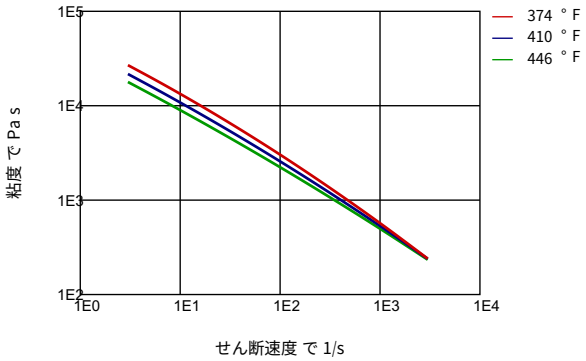
- flexible tubing
- off shore
- corrosion protection in the chemical industry
- wire and cable jacketing with and without cross-linking
- coating (painting, co-extrusion)

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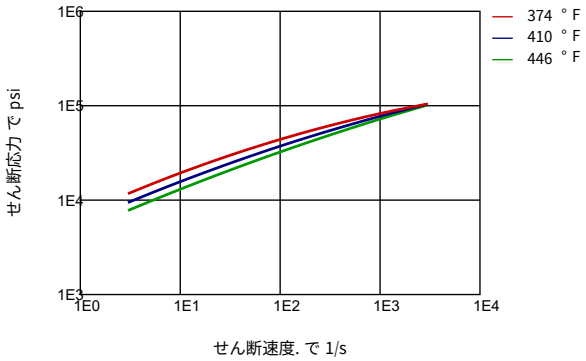
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## 機能

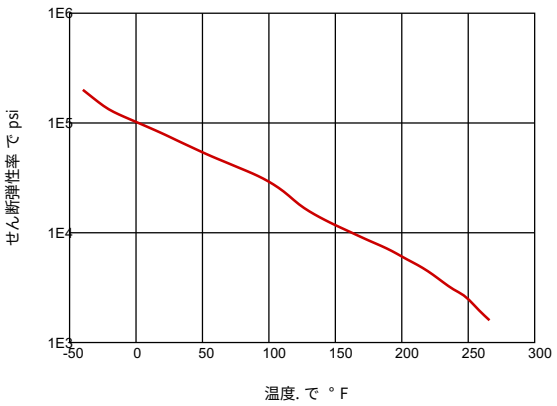
### 粘度せん断速度.



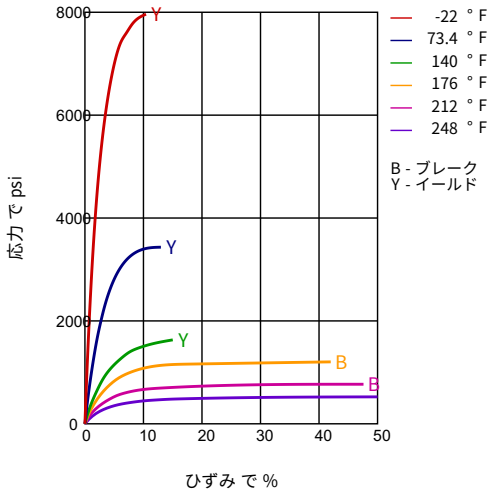

### せん断応力-せん断速度.




### せん断弾性率-温度.



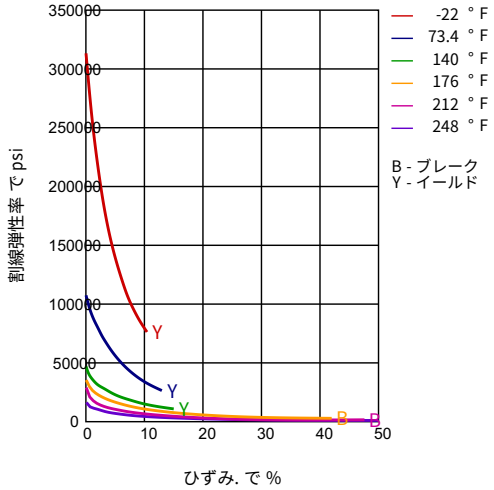

### 応力-ひずみ.




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## 割線弾性率ーひずみ.




## 成形加工法

異形押出成形，その他の押出成形

## 納入形状

ペレット

## 特殊な特性

熱安定化，光安定化

## 領域別の利用可能性

北アメリカ.，ヨーロッパ.，アジア/太平洋地域.，
南・中央アメリカ.，近東/アフリカ


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