

MC401 FEP

ASTM D2116-02 type IV

Material Datasheet • Issue 3 • Jan 2017

Material

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ASTM D2116-02 type IV

Description

- Fep (fluorinated ethylene propylene)
- Fluoropolymer translucent virgin grade

Application

This material has excellent chemical inertness, heat resistance and low coefficient of friction.

Temperature

- Low temperature service limit - 418F (-250 C).
- Upper temperature continuous service limit +428F (+204 C).

Products

Jacket material for our range of Encapsulated O Rings.

Approvals

- This grade of material is compliant with US FDA regulation 21 CFR 177.1550 § (a) (1) and (b) as finished articles & European regulations EC1935/2004.
- 3-A Sanitary Standards for multiple-use plastic materials used as product contact surfaces for dairy equipment number 20-17.
- US Pharmacopeia (USP) Class VI at 121°C for one hour.

Physical Properties

| General | Standard | Typical Values |
|---|------------|----------------|
| Specific Gravity | ASTM D792 | 2.15 |
| Hardness shore D (slab) | ASTM D2240 | 55 |
| Elongation % | ASTM D638 | 300 |
| Tensile strength Psi (Mpa) (Dumbbell) | ASTM D638 | 4350(30) |
| Flexural modulus Psi (Mpa) (Dumbbell) | ASTM D790 | 95065(655) |
| MIT folding endurance (0.18-0.20 mm film) | ASTM D2176 | 80,000 |



| Thermal | Standard | Typical Values |
|--|----------|----------------------|
| Melting point F (°C) | D2116 | 490(255) |
| Coefficient of linear thermal expansion 100 - 160 F(38-71°C) | D696 | 10-5 K ⁻¹ |
| Environmental | | |
| Water absorption % 24 Hrs | D570 | < 0.01 |
| Weathering | | excellent |

Information

The above information corresponds to our current knowledge and is offered solely to provide possible suggestions for your own experimentations. It is not intended to substitute any testing you may need to conduct to determine suitability of our products for your end use.

Northern Engineering reserves the right to revise this information as new knowledge and experience becomes available. Northern Engineering makes no warranties and assumes no liability in connection with any use of the above information.

