

M SEALS EPFQ-W85

White FDA compliant Sulphur cured EPDM Rubber



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



FDA Compliant



ADI Free

Description

M Seals material EPFQ-W85 is a white Sulphur cured Ethylene-Propylene-Rubber (EPDM) which has been migration tested in accordance with FDA 21 CFR 177.2600 and meets the requirements of EC1935/2004 regulations. This fantastic attribute makes EPFQ-W85 a good choice for seals and other elastomeric parts which require good chemical and/or fluid compatibility while working in food and beverage applications. EPDM has a poor resistance to fats and oils; therefore, we do not recommend its use in applications utilising these types of fluid/s.

Physical Properties

| Property | Test method | Unit | Typical value |
|---|-------------|-------------------|---------------|
| Colour | | | White |
| Density | ISO 1183-1 | g/cm ³ | 1.39 |
| Hardness @ 23°C | ISO 7619-1 | Shore A | 85 |
| 100% Modulus | DIN 53504 | N/mm ² | 3.0 |
| Tensile Strength | DIN 53504 | N/mm ² | 5.8 |
| Elongation at break | DIN 53504 | % | 454 |
| Tear resistance | ISO 34-1 A | N/mm | 28.8 |
| Compression set (24 Hours @ 70°C, 25%) | ISO 815-1 | % | 19.8 |
| Compression set (24 Hours @ 100°C, 25%) | ISO 815-1 | % | 35.1 |
| Minimum service temperature | | °C | -50 |
| Maximum service temperature | | °C | +100 |

Global migration results of FDA extraction on EPFQ-W85 material samples (mg/inch²)

| FDA test method | Reflux test conditions | Mass Loss | Limit* | Conclusion |
|------------------|---------------------------|-----------|--------|------------|
| CFR 177.2600 (e) | De-ionised water, 7 hours | 9 | 20 | PASS |
| CFR 177.2600 (e) | De-ionised water, 2 hours | <1 | 1 | PASS |
| CFR 177.2600 (f) | N-hexane, 7 hours | 71 | 175 | PASS |
| CFR 177.2600 (f) | N-hexane, 2 hours | 7 | 4 | PASS |

* Maximum acceptable global migration according to FDA CFR 177.2600 – This material exceeds the limit on the second extraction test with N-hexane. In a migration test set-up, N-hexane is used to simulate fatty and/or oily foodstuff of which EPDM has no compatibility. It is not recommended to use this material in applications utilising this type of fluid / foodstuff.

Main Characteristics

- FDA Compliant
- Migration tested in accordance with EC1935/2004 regs
- Animal Derived Ingredient Free (ADI Free)
- Good resistance to acids, alcohols, bases and brake fluid
- Useful temperature range

Typical Products

- Triclover seals
- RJT seals
- DIN 11851 D-Seals
- Static Seals & O-Rings
- Depositor seals

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