



Encapsulated O-Ring with Teflon®[®], Viton®[®], Silicone, EPDM

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Overview

DMR™ encapsulated o-rings are consisting of a seamless and uniform Teflon® encapsulation which completely encloses a rubber core material. Elastomer/rubber core material are a choice of Silicone, Viton, EPDM or Viton GF. The combination of these components creates an o-ring that is virtually chemically inert and compression set resistant for use in harsh sealing environments.

Features

High Chemical Resistance: Chemical attack and swelling are the primary causes of O-Ring failure. DMR™ encapsulated o-rings are virtually chemically inert.

Outperforms solid PTFE O-Rings: DMR™ encapsulated o-rings match the chemical and temperature resistance of solid PTFE O-Rings. DMR™ encapsulated o-rings possess properties of elasticity and recovery which are crucial in many sealing applications.

Economical: DMR™ encapsulated o-rings economically and effectively replace Kalrez and other exotic O-Ring compounds. DMR™ encapsulated o-rings will decrease downtime and hence increase profitability wherever corrosive fluids and gases cause premature seal failure.

Wide Temperature Range: DMR™ encapsulated o-rings withstand breakdown caused by industrial solvents and corrosive materials at elevated temperatures from -60° C/-75° F to +205° C/400° F. (See General Specifications)

Non Stick Surface: Provides easy cleanup of viscous materials.

Low Coefficient of Friction: .2 on metal. Self-lubricating surface.

Sanitary: Eliminates contamination of fluids by elastomers. Sterilisable and autoclavable. FDA compliant, USP Class VI compliant, NSF compliance ~ available for specific applications.

Unlimited Sizes: Available in standard and metric sizes from .059" cross section x ½" I.D. to virtually unlimited larger sizes.

Low Compression Set: DMR™ encapsulated o-rings consist of either a solid silicone or Viton® core encapsulated in Teflon®* FEP/PFA resin (with .010 to .045 wall depending cross section) which meets or exceeds requirements of L-P389A and ASTM-D-2166.

*DuPont Registered Trademark

Essential components for industry

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Dorval, QC
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Edmonton, AB
780.435.8899

Atlanta, GA
770.953.4710

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Size Range for Teflon Encapsulated O-Rings*

Standard AS/BS Cross Sections	MIN. ID RANGE
.070	.207
.103	.207
.139	.375
.210	.875
.275	1.063

Smaller inside diameters are available upon request

General Specifications

1. Encapsulation material:

Teflon® FEP: Tetrafluoroethylene-Hexafluoropropylene.

Dupont Teflon PFA: Tetrafluoroethylene-Perfluoro (Propyl Vinyl Ether).

2. Core material: Dow Corning Silicone, DuPont Viton® Type A, Viton® GFS elastomers.

3. Continuous service temperature:

A. Teflon FEP Encapsulation with Silicone Core: 400F/204C. to -75F/-60C

B. Teflon PFA Encapsulation with Silicone Core: 500F/260C to -75F/-60C

C. Teflon FEP Encapsulation with Viton® Core: 300F/149C to -10F/-23C

D. Teflon FEP Encapsulation with HT Viton® Core: 400F/204C to -10F/-23C

E. Teflon PFA Encapsulation with HT Viton® Core: 400F/204C to -10F/-23C

4. Coefficient of friction: .1 to .2 on metal surfaces.

5. Water absorption: <0.01.

6. Average total shore A hardness:

85-90 shore A for solid silicone core.

90-95 shore A for solid Viton core.

75-80 shore A for hollow silicone core.

7. FDA Compliance: The clear TEFLON® FEP encapsulation of the DMR™ o-ring complies with part 177 of Title 21 of the Food and Drug Administration's regulations for safe use as articles or components of articles for producing, manufacturing, processing, preparing, treating, packing, transporting or holding food in accordance with regulation 177.1550.00

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