

Thomson

# OPTI-LOAD<sup>®</sup> FKM-MAX



## TYPICAL APPLICATIONS

- Non-metallic flanges and flanges that have limited seating stress available.
- Water; Saturated Steam, Sulfuric Acid.
- Hydrocarbons including greases, oils, petroleum.
- Chlorine wet/dry.
- Applications where external environment may degrade other elastomers from the outside.

The OPTI-LOAD<sup>®</sup> FKM-MAX gasket is made from a high performance FKM compound that is suitable for a wide variety of chemicals, including: strong acids, caustics, hydrocarbons and also has good steam resistance.

## FEATURES / BENEFITS

- Raised sealing rings reduce the seating area of the gasket, lowering the required load to achieve a seal.
- Sealing rings also help maintain the seal during thermal and pressure cycling.
- Can replace most Teflon<sup>™</sup> envelope styles as well as other exotic elastomers which reduces inventory and helps prevent misapplication.
- High Temperature capability in comparison to standard elastomers.
- Resistance to Hydrocarbons, Steam and Caustics.
- Identification tab on the outside diameter of the gasket allows operator to verify material and size while in service.

## SPECIFICATIONS

**Construction:**  
High Performance  
Fluoroelastomer

**Colour:**  
Black

**Temperatures:**  
Minimum: -15°F (-26°C)  
Intermittent: +400°F (+203°C)

**Durometer:** 70  
Shore A +/- 5%

**Max Pressure:**  
150 psi (10 bar)

\* See reverse for recommended bolt torque values and other technical data.

Teflon<sup>™</sup> is a registered trademark of The Chemours Company.

## TECHNICAL DATA - OPTI-LOAD® FKM-MAX

### Physical Properties

| TEST METHOD | TYPICAL PHYSICAL PROPERTIES              |     |
|-------------|--|-----|
| ASTM D412   | Elongation: %                            | 235 |
| ASTM D395B  | Compression set before 70 hrs @ 200°C: % | 32  |

### Bolt Torque Values for Thomson OPTI-LOAD® Gaskets on ASME B16.5 Flat Face Flanges

| NPS (IN) | NO. OF BOLTS | SIZE OF BOLTS (IN) | MIN. SUGGESTED TORQUE (FT. LBS.) | PREFERRED TORQUE RANGE (FT. LBS.) |     |
|----------|--------------|--------------------|----------------------------------|-----------------------------------|-----|
|          |              |                    |                                  | MIN                               | MAX |
| 0.5      | 4            | 0.50               | 5                                | 9                                 | 19  |
| 0.75     | 4            | 0.50               | 6                                | 12                                | 23  |
| 1        | 4            | 0.50               | 7                                | 14                                | 28  |
| 1.25     | 4            | 0.50               | 8                                | 16                                | 32  |
| 1.5      | 4            | 0.50               | 10                               | 19                                | 37  |
| 2        | 4            | 0.63               | 17                               | 33                                | 66  |
| 2.5      | 4            | 0.63               | 23                               | 45                                | 90  |
| 3        | 4            | 0.63               | 25                               | 49                                | 97  |
| 3.5      | 8            | 0.63               | 15                               | 30                                | 60  |
| 4        | 8            | 0.63               | 17                               | 33                                | 66  |
| 5        | 8            | 0.75               | 21                               | 41                                | 82  |
| 6        | 8            | 0.75               | 23                               | 46                                | 92  |
| 8        | 8            | 0.75               | 33                               | 66                                | 132 |
| 10       | 12           | 0.88               | 32                               | 64                                | 128 |
| 12       | 12           | 0.88               | 47                               | 93                                | 186 |
| 14       | 12           | 1.00               | 67                               | 134                               | 268 |
| 16       | 16           | 1.00               | 60                               | 120                               | 241 |
| 18       | 16           | 1.13               | 66                               | 132                               | 264 |
| 20       | 20           | 1.13               | 62                               | 124                               | 249 |
| 24       | 20           | 1.25               | 87                               | 173                               | 347 |

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