

SEALING PROPERTIES FOR
***INERTEX*[®] UHF JOINT SEALANT and**
***INERTEX*[®] UHF EZ SEAL INSERTABLE GASKETS**

• DIN 3535 Gas Permeability

This standard provides a means of measuring leakage of a gas through a gasket. This test is designed to compare the leakage rates of different products. The apparatus used is considerably more versatile than that used in ASTM F37. The sample gasket size can be varied, and much higher internal pressures can be used. Normally measurements are made at room temperature.

Results of gas permeability test (DIN 3535 Part 4 Sec. 4.7)

3/16" (5mm) *INERTEX*[®] UHF Joint Sealant,
 2.76" (70mm) of sealing ring's diameter.
 Temperature = 73°F 3.6° (23°C ± 2°) nitrogen gas.
 Clamping Pressure = 4350 psig (30 N / mm²).

Internal Pressure	Gas permeability (ml/min.)
232 psig (16 bar)	0.04 (range 0.02 - 0.05)
363 psig (25 bar)	0.04 (range 0.03 - 0.05)
580 psig (40 bar)	0.06 (range 0.04 - 0.07)

• DIN 52913 Torque Retention

This test equipment is designed to determine the torque retention capabilities of gasket products, when subjected to the compression load and operating temperatures as defined by the test procedures.

The test consists of applying a predetermined load on the test gasket via a tension screw, then heating the gasket/flange assembly to the desired temperature (there is no internal pressure). The standard test period is either sixteen (16) hours or one hundred (100) hours. At the end of the required time period, the compression load which is left acting on the test gasket, is measured. This allows one to calculate the torque retention capabilities of various gasketing products.

This test differs from the "Hot Compression Test" in that the gasket load is not constant, but is a function of the torque retention capability of the product tested.

Results of torque retention test (DIN 52913)

3/16" (5mm) *INERTEX*[®] UHF Joint Sealant.
 2.56" (65mm) sealing ring's diameter.
 Clamping Pressure = 4350 psig (30N/mm²)
 Test period = 16 hours
 Operating temperature = from 73°F (23°C) to 302°F (150°C) and 392°F (200°C).

Temperature	Times Tested	Torque Retention	Decrease %
302°F (150°C)	Continuous 16 times	2751 psi (range 2465-2929)	37.3% (32.6%-43.3%)
392°F (200°C)	Continuous 12 times	2717 psi (range 2465-2915)	37.6% (33.0%-43.4%)

• Compressibility - Please refer to chart IV on page 7.

Remarks:

DIN (Deutsches Institut für Normung)

German Institute for Standardization