



TEALON™



Sealing for a Safer and Greener Tomorrow

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TEALON™



| OPERATING PARAMETERS | | 1570 | 1580 | 1590 |
|------------------------|------------------------------|-------------------------------------|----------------------|------|
| TEMPERATURE | | -450 to 500 °F (-268 to 260 °C) | | |
| MAX.PRESSURE | | 800 psig (55 bar) | to 1200 psig(83 bar) | |
| PRESSURE X TEMPERATURE | | Psig x °F | (bar x °C) | |
| 1/16" | | 350.000 | (12.000) | |
| 1/8" | | 250.000 | (8.600) | |
| AVAILABILITY: | | | | |
| SHEET SIZES | | 59" X 59" or 62" X 62" | | |
| THICKNESS | | 1/32" , 1/16" , 3/32" , 1/8" , 1/4" | | |
| COMPOSITION | PTFE WITH GLASS MICROSPHERES | PTFE WITH BARIUM SULFATE | PTFE WITH SILICA | |

TEALON IS A RESTRUCTURED POLYTETRAFLUOROETHYLENE (rPTFE) GASKET MATERIAL DESIGNED FOR CHEMICAL, FOOD, PHARMACEUTICAL AND PETROCHEMICAL PROCESSING PLANTS. THE MAIN ADVANTAGE OF TEALON™ OVER ORDINARY SKIVED PTFE IS ITS HIGH RESISTANCE TO DISTORTION (CREEP AND COLD FLOW). OUR UNIQUE MANUFACTURING PROCESS CREATES A FIBRILLATED STRUCTURE WITH BIAXIAL STRENGTH TO GUARANTEE DIMENSIONAL STABILITY AND MAXIMUM JOINT TIGHTNESS.

TO ENHANCE THE PERFORMANCE AND TO MEET THE CRITICAL DEMANDS OF CHEMICAL RESISTANCE IN A VARIETY OF SERVICES, MATERIALS WITH VERY SPECIFIC FILLERS WERE DEVELOPED.

TEALON 1570 (BLUE) IS FILLED WITH GLASS MICROSPHERES AND IS SUITABLE FOR AGGRESSIVE CHEMICAL APPLICATIONS. DUE TO THE FILLERS CAPABILITIES TO IMPROVE COMPRESSIBILITY, 1570 IS THE PREFERRED MATERIAL FOR FRAGILE FLANGES, GLASS LINED EQUIPMENT OR OTHER APPLICATIONS THAT REQUIRE HIGHER COMPRESSIBILITY.

TEALON 1580 (WHITE AND YELLOW) IS FILLED WITH BARIUM SULFITE AND IS SUITABLE FOR STRONG CAUSTIC FLUIDS. IT MEETS FDA CONFORMANCE FOR SERVICE WITHIN FOOD AND PHARMACEUTICAL APPLICATIONS. 1580 CAN BE USED IN A WIDE RANGE OF APPLICATIONS DUE TO ITS VAST RESISTANCE TO MOST

CHEMICAL PRODUCTS. IT IS COMPATIBLE WITH STRONG ACIDS ALONG WITH STRONG CAUSTICS, MAKING IN THE MOST DIVERSE MATERIAL WITHIN THE TEALON FAMILY. WITH THE WHITE COLOR OF 1580, THIS MATERIAL IS ALSO SUITABLE FOR PROCESSES WHERE CONTAMINATION IS NOT TOLERATED. TEALON 1580 MEETS AND HAS BEEN APPROVED BY **BAM** FOR OXYGEN SERVICE.

TEALON TF1590 (FAWN) IS FILLED WITH SILICA AND MEETS A WIDE RANGE OF APPLICATIONS. IT IS SUITABLE FOR GENERAL SERVICE, STRONG ACIDS AND MODERATE CAUSTIC SOLUTIONS. IT MEETS FDA CONFORMANCE FOR SERVICE WITHIN FOOD AND PHARMACEUTICAL APPLICATIONS. **1590** HAS PASSED THE HOBT2 TEST WITHOUT EXPERIENCING A BLOWOUT.

ALL **TEALON (1570, 1580 AND 1590)** MATERIALS HAVE BEEN INDEPENDENTLY TESTED AT ECOLE POLYTECHNIQUE, CETIM AND MPA-STUTTGART. TEALON MATERIALS HAVE **TA-Luft**, APPROVAL FOR REFINARY SERVICE AND **DVGW²** APPROVAL FOR GAS APPLICATIONS.



ALL NEW STYLES HAVE BEEN INDEPENDENTLY TESTED AND APPROVED BY TEADIT ENGINEERING TO BE USED IN AGGRESSIVE CHEMICAL SERVICE

1570
BLUE

1580
WHITE

1590
FAWN



| | | | |
|---------------------------------------|-------------------|--|-------------------|
| STRONG ACIDS* *EXCEPT HYDROFLUORIC | | | |
| STRONG CAUSTIC | Technical Consult | | Technical Consult |
| MODERATE CAUSTIC | | | |
| CHLORINE | | | |
| SOLVENTS | | | |
| HYDROCARBONS | | | |
| GASES | | | |
| HYDROGEN | | | |
| OXYGEN (1) | Technical Consult | | Technical Consult |
| ALUMINIUM FLUORIDE | Technical Consult | | Technical Consult |
| STEAM | | | |
| WATER | | | |
| HYDROGEN PEROXIDE | | | |
| REFRIGERANTS | | | |

Technical Consult - consult TEADIT Engineering.

(1) Tealon TF1580 is unbranded and cleaned for oxygen service.

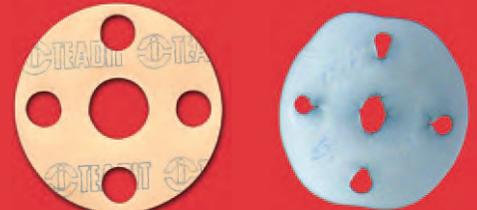
HOT COMPRESSION TEST

THIS PERFORMANCE TEST MEASURES THE BEHAVIOR OF rPTFE AND PTFE GASKETS IN A REAL WORLD ENVIRONMENT. THE CHART BELOW SHOWS A COMPARISON BETWEEN CONVENTIONALLY SKIVED PTFE AND TEALON. THE GASKETS WERE INSTALLED SIMULATING A REAL WORLD APPLICATION INCLUDING THERMO-CYCLING. THE SKIVED PTFE GASKET SHOWED A VERY HIGH LEAK RATE, LOSING 60% OF ITS INITIAL PRESSURE BY THE END OF THE TEST. THE TEALON GASKET LOST ONLY 6% OF ITS INITIAL PRESSURE BY THE END OF THE TEST AND SHOWED A LEAK 10 TIMES LESS THAN THAT OF THE SKIVED PTFE GASKET. THE PICTURES BELOW, SHOW THE GASKETS AFTER THE TEST AND EXHIBIT THE DIMENSIONAL STABILITY OF TEALON AS COMPARED TO THE NOTICEABLE CREEP OF THE SKIVED PTFE GASKET.



TEALON*
1570

TEALON*
1580

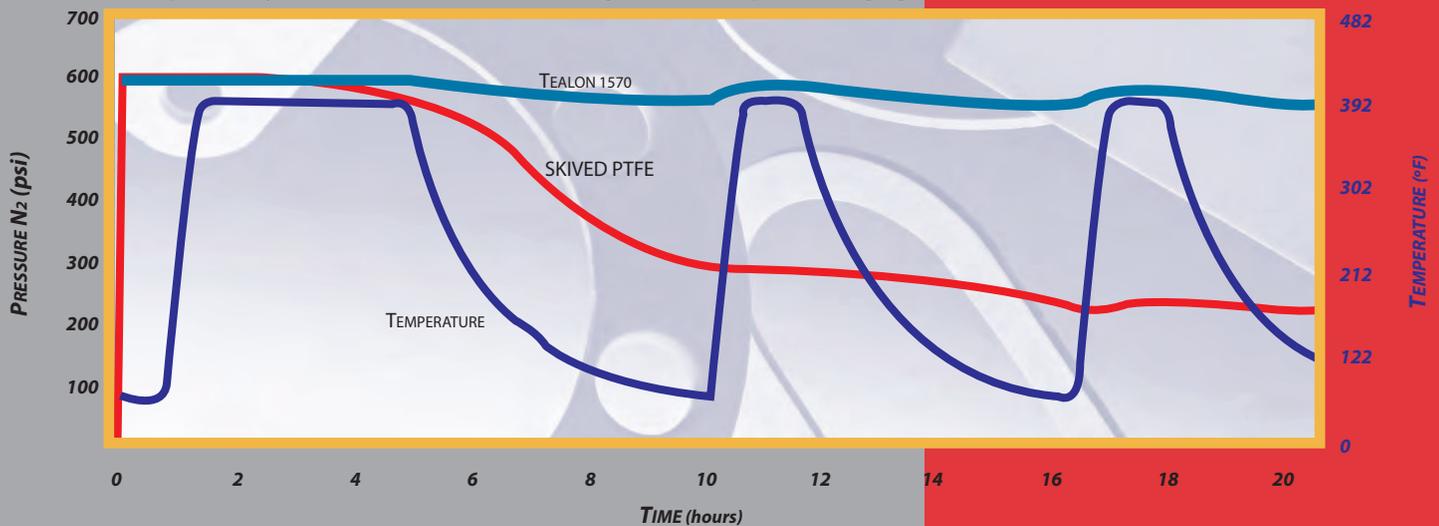


TEALON*
1590

Skived PTFE

THERMO-CYCLING LEAK TEST

Temperature cycles from 86°F to 392°F, with seating stress of 5000 psi and using a gasket thickness of 1/8"



| Physical Properties | Test Method | Tealon* 1570 | Tealon* 1580 | Tealon* 1590 |
|---------------------------------------|-------------|--------------|--------------|--------------|
| Color | | Blue | White/Yellow | Fawn |
| Sealability (ml/h) | ASTM F 37 | 0,12 | 0,04 | 0,20 |
| Creep Relaxation (%) | ASTM F 38 | 40 | 24 | 18 |
| Compressibility (%) | ASTM F 36 | 30 - 50 | 4 - 10 | 7 - 12 |
| Recovery Mín. (%) | ASTM F 36 | 30 | 40 | 40 |
| Tensile Strength (N/mm ²) | ASTM F 152 | 14 | 14 | 14 |

ASTM tests are based on 1/32" sheet thickness.

subject to change without notice; this edition cancels all previous issues.

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