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Teflon[®] Liner for Aging Cells

#175-60 - For 500 mL Aging Cells
#175-60-6 - For 260 mL Aging Cells

Instruction Manual

Updated 6/8/2020

Ver. 5

OFI Testing Equipment, Inc.

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Intro

Testing highly corrosive fluids at high temperatures and pressures can cause significant, permanent damage to typical stainless steel aging cells. The OFITE Teflon® Liner is designed to prevent corrosive damage while still providing the same results as a standard aging cell.

The Teflon® Liner consists of a chamber for the test fluid and a floating piston that pressurizes the sample fluid when the aging cell is pressurized. Included is a T-screw that attaches to a hole in the piston and facilitates removal. A plug seals the hole in the piston during a test to prevent leakage.

Components

#175-60-1	Teflon® Liner (For 500 mL Cells)
#175-60-5	Teflon® Liner (For 260 mL Cells)
#175-60-2-1	Piston
#175-60-3	Plug
#175-60-4	T-screw
#175-62	O-ring for Plug, Viton®
#175-63	O-ring for Piston, Viton®

#175-60-SP Spare Parts for #175-60:

#165-44	High-Temperature Thread Lubricant, 1 oz
#175-62	Viton® O-ring for Plug, Qty: 18
#175-63	Viton® O-ring for Piston, Qty: 24

Loading Procedure

1. Fill the chamber with fluid. For tests above 200°F (93°C), use the chart below to determine the correct fluid volume.

Mud Volume and Pressure for High-Temperature Aging							
Aging Temp. (°F / °C)	Water Vapor Pressure (psi)	Coefficient of Expansion of Water	Suggested Applied Pressure (psi / kPa)	Mud Volume in 260 mL Cell (mL)	Volume with Teflon Liner	Mud Volume in 500 mL Cell (mL)	Volume with Teflon Liner
212 / 100	14.7	1.04	25 / 172	225	130	450	326
250 / 121	30	1.06	50 / 345	225	130	450	326
300 / 149	67	1.09	100 / 690	200	116	425	308
350 / 176	135	1.12	150 / 1,034	200	116	400	289
400 / 204	247	1.16	250 / 1,724	-	-	375	271

2. Press the piston into the chamber down to the level of the test fluid. Remove as much air as possible from the chamber.
3. Screw the plug into the center of the piston until it is snug.
4. Thoroughly wash the liner and wipe away any excess fluid. Inspect the liner for leaks. Make sure the liner is completely dry.
5. Drop the closed liner into the aging cell.



Be very careful not to get any fluid in the space between the liner and the aging cell wall. If this happens, the liner will buckle when the temperature reaches the boiling point.



6. Refer to the aging cell instruction manual for testing procedures.

The maximum temperature for the Teflon® Liner is 400°F (204.4°C).

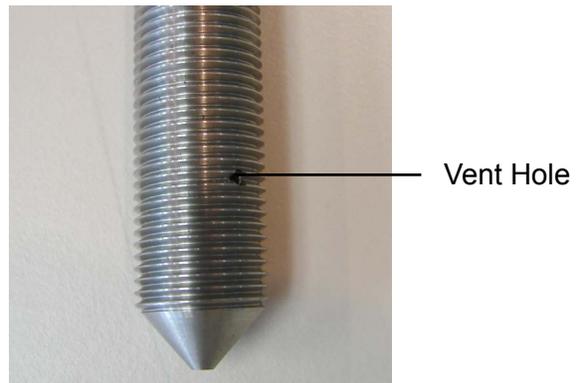
Unloading Procedure



Note

1. Follow the aging cell instructions for removing, cooling, and depressurizing the test cell.
2. Unscrew the plug and screw the T-screw into the piston. Carefully pull the piston out of the chamber.

The T-screw supplied with the Teflon® liner is specially designed with a vent hole to allow the pressure inside the chamber to equalize while you are removing the piston. The T-screw provided with the OFITE low-pressure, low-temperature filter presses may look the same, but does not include the vent hole and will not work to remove the piston.



3. Teflon® liners are designed to be left in place permanently as they expand when heated. Attempting to remove it could damage it, and/or prevent it from fitting in the cell for future use.

Maintenance

1. Inspect the o-rings on the piston and on the plug before and after each test. Replace any that show signs of wear or damage.
2. Thoroughly clean all components of the liner after every test. Blow air through the vent hole in the T-screw to make sure it is not plugged.

Warranty and Return Policy

Warranty:

OFI Testing Equipment, Inc. (OFITE) warrants that the products shall be free from liens and defects in title, and shall conform in all respects to the terms of the sales order and the specifications applicable to the products. All products shall be furnished subject to OFITE's standard manufacturing variations and practices. Unless the warranty period is otherwise extended in writing, the following warranty shall apply: if, at any time prior to twelve (12) months from the date of invoice, the products, or any part thereof, do not conform to these warranties or to the specifications applicable thereto, and OFITE is so notified in writing upon discovery, OFITE shall promptly repair or replace the defective products. Notwithstanding the foregoing, OFITE's warranty obligations shall not extend to any use by the buyer of the products in conditions more severe than OFITE's recommendations, nor to any defects which were visually observable by the buyer but which are not promptly brought to OFITE's attention.

In the event that the buyer has purchased installation and commissioning services on applicable products, the above warranty shall extend for an additional period of twelve (12) months from the date of the original warranty expiration for such products.

In the event that OFITE is requested to provide customized research and development for the buyer, OFITE shall use its best efforts but makes no guarantees to the buyer that any products will be provided.

OFITE makes no other warranties or guarantees to the buyer, either express or implied, and the warranties provided in this clause shall be exclusive of any other warranties including ANY IMPLIED OR STATUTORY WARRANTIES OF FITNESS FOR PURPOSE, MERCHANTABILITY, AND OTHER STATUTORY REMEDIES WHICH ARE WAIVED.

This limited warranty does not cover any losses or damages that occur as a result of:

- Improper installation or maintenance of the products
- Misuse
- Neglect
- Adjustment by non-authorized sources
- Improper environment
- Excessive or inadequate heating or air conditioning or electrical power failures, surges, or other irregularities
- Equipment, products, or material not manufactured by OFITE
- Firmware or hardware that have been modified or altered by a third party
- Consumable parts (bearings, accessories, etc.)

Returns and Repairs:

Items being returned must be carefully packaged to prevent damage in shipment and insured against possible damage or loss. OFITE will not be responsible for equipment damaged due to insufficient packaging.

Any non-defective items returned to OFITE within ninety (90) days of invoice are subject to a 15% restocking fee. Items returned must be received by OFITE in original condition for it to be accepted. Reagents and special order items will not be accepted for return or refund.

OFITE employs experienced personnel to service and repair equipment manufactured by us, as well as other companies. To help expedite the repair process, please include a repair form with all equipment sent to OFITE for repair. Be sure to include your name, company name, phone number, email address, detailed description of work to be done, purchase order number, and a shipping address for returning the equipment. All repairs performed as "repair as needed" are subject to the ninety (90) day limited warranty. All "Certified Repairs" are subject to the twelve (12) month limited warranty.

Returns and potential warranty repairs require a Return Material Authorization (RMA) number. An RMA form is available from your sales or service representative.

Please ship all equipment (with the RMA number for returns or warranty repairs) to the following address:

OFI Testing Equipment, Inc.
Attn: Repair Department
11302 Steeplecrest Dr.
Houston, TX 77065
USA

OFITE also offers competitive service contracts for repairing and/or maintaining your lab equipment, including equipment from other manufacturers. For more information about our technical support and repair services, please contact techservice@ofite.com.