

MICROFILTRATION - **Technical Data**

MPL 43 - DIFFUSIVE FLOW TEST - FLUOROFIL

Pre-Wetting:

It is imperative that the Fluorofil cartridge is thoroughly wetted with a solution of 60% iso propyl alcohol (IPA) and 40% water before carrying out the diffusion test. To achieve thorough wetting follow pre-wetting procedure described in MLP16.

Procedure:

- 1. Wet 'O' rings with water and install **Fluorofil** Cartridge in the housing.
- 2. With the wetted Cartridge positioned in the housing, connect housing inlet to a regulated source of clean compressed air (or other test gas such as nitrogen), and connect housing outlet to a suitable piece of flexible tube, extending into a inverted calibrated burette over a water trough partially filled with water (see fig 1).
- Compressed Regulator Gauge 3. Open gas valve slowly Air Supply so as to pressurise filter Syringe assembly to 300mbar, Housing hold pressure for 30 CThree-Wav Calibrated Stopcock seconds to allow excess Burette Wet Filter test solution to drain. Cartridge Trough Continue to increase the Downstream gas pressure slowly until Drained the required test value is. fig 1 reached.
- 5. Measure flow rate (ml/min) of diffusing gas after flow has stabilised for 5 Minutes.
- 7. Maximum acceptable diffusive flow rates for **Fluorofil** cartridges are:

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PRODUCT CODE	PORE SIZE RATING	TEST PRESSURE		MAXIMUM DIFFUSION
	μm	mbar	psi	ml/min
F10	0.1	1300	19	10
F20	0.2	800	12	10
F45	0.45	400	6	10

8. Maximum Permissible Diffusion Values:

110mm (4")	Cartridge	-	4.4ml/min
125mm (5")	Cartridge	-	5.0ml/min
250mm (10")	Cartridge	-	10.0ml/min
500mm (20")	Cartridge	-	20.0ml/min
750mm (30")	Cartridge	-	30.0ml/min
1000mm (40")	Cartridge	-	40.0ml/min

Note:

Most integrity test failures are due to incomplete wetting of the filter cartridge rather than a defect in the filter membrane itself. Therefore, if a failure occurs, rewet the cartridge and repeat test.

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