

November 18, 2011

Dear customer:

Per your request related to a recent change notification, here are specifications for the PES membrane used in Nalgene® MF75™ filter units and bottle top filters.

Specification	Current Membrane	New Membrane
Material	Polyethersulfone (PES)	Polyethersulfone (PES)
Pore size	0.2 microns	0.2 microns
Bacterial test organism	<i>B. diminuta</i>	<i>B. diminuta</i>
Bubble point	≥ 3.8 bar (≥ 55 psi) with water	≥ 1.4 bar (≥ 20 psi) with IPA
Flow rate with water	37.8-64.3ml/(min cm ² bar)	≥ 14.6 ml/(min cm ² bar)
Flow rate with media (RPMI+10% BGS)	17.7 ml/(min cm ² bar)	21.5-21.6 ml/(min cm ² bar)
Extractable with water	≤ 1 %	≤ 1%
Pore size	0.45 microns	0.45 microns
Bacterial test organism	-----	<i>S.marcescens</i>
Bubble point	≥ 2.5bar (≥ 36 psi) with water	0.7-1.5 bar (10-22 psi) with IPA
Flow rate with water	82.2 ml/(min cm ² bar)	≥ 17.2 ml/(min cm ² bar)
Extractable with water	≤ 1 %	≤ 1%

Sincerely yours,



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