# TEFPASS<sup>®</sup> *M-PTFE GBK Lining Sheet*

- Better weldability.
- Denser polymer structure with reduced permeability.
- Substantially lower deformation under load.
- High degree of purity. Therefore, M-PTFE is very suitable for semi-conductor industry.
- Smooth and pore-free surface that prevent contaminates being trapped and thus make cleaning M-PTFE sheet surface considerably easier.
- Substantially fewer cleaning cycles of M-PTFE due to optimized surface properties compare to conventional PTFE.

Safety

Quality

Innovation

ervice







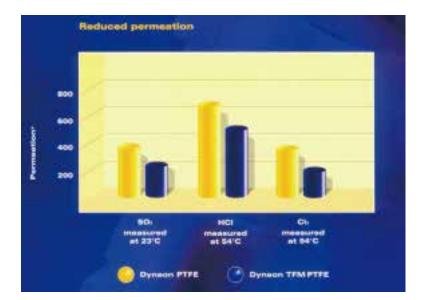
www.alliedsupreme.com

# **Reduced permeation:**

\*According to DIN 53380. film thickness 1mm.

Cm<sup>3</sup> M<sup>2</sup> x d x bar

Permeation of chemicals through A 1mm film test film made from M-PTFE is much lower than through A film made from PTFE.



# Skived Film under an optical microscope at 25X magnification:

The denser polymer structure of M-PTFE is apparent under the microscope.



Conventional PTFE : The original particle boundaries are clearly discernible after the sintering process.



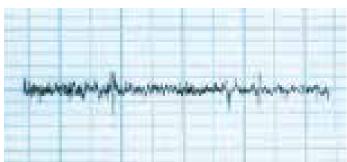
M-PTFE :

The original particle boundaries are no longer discernible because of better fusion between particles.

# Laser surface profilometry – Surface roughness of fluoropolymer:



PTFE sheet

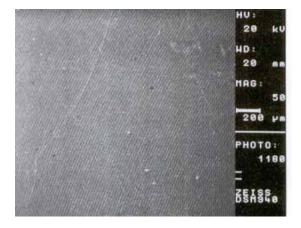


M-PTFE sheet

# Surface roughness of machined parts: (50:1 magnification)



Note the rougher surface of machined parts made from conventional PTFE.



The much smoother surface of M-PTFE part can be clearly seen under the microscope.

### **Specifications:**

| Nominal Size | M-PTFE sheet<br>Thickness<br>(mm) | Total thickness<br>(mm) | Width<br>(mm) |
|--------------|-----------------------------------|-------------------------|---------------|
| 2.4 mm       | 2.4                               | 3.1                     | 1,200         |
| 3 mm         | 3                                 | 3.7                     | 1,200         |

# Welding Material:

| Item           | PFA 451HP rod |      |      | PFA 451HP cap strip |          |            |
|----------------|---------------|------|------|---------------------|----------|------------|
| Dimension (mm) | 3Ø            | 3.5Ø | 4Ø   | 5Ø                  | 14w×2.5t | 14.7w×2.7t |
| Roll length    | 100M/Roll     |      |      | 50M/Roll            |          |            |
| Weight (g/M)   | 15.2          | 20.5 | 26.8 | 41.9                | 74.9     | 84.7       |

Resource:

- 1. Above data are excerpted from M-PTFE brochure.
- 2. 2. PFA 451HP is a product name of Dupont.



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