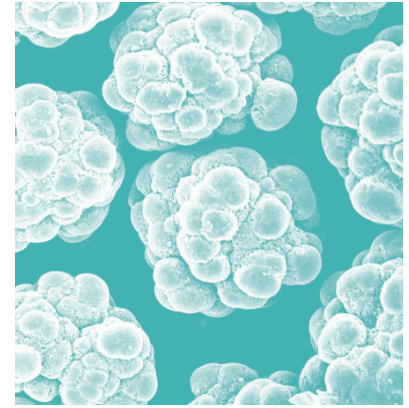


Ekonol® Case Study #6:



Frictional Properties of 25% Ekonol®/PTFE in Various Environments

Frictional properties determined with 25% Ekonol® in PTFE are given in the table below for three environments. The tests were run at 100 fpm (0.51 m/s) using a 1040 carbon steel washer. A K factor of 3×10^{-10} in air makes 25% Ekonol®/PTFE the lowest wearing PTFE composition available. The dynamic

and static coefficients of friction were found to be comparable when tested in different environments. The most significant factor is that virtually no wear was observed for the mating steel washer even after 100 hours of testing. This was also true for testing in both dry Nitrogen and Hydraulic oil.

COMPARISON OF WEAR RATE FOR 25% EKONOL®/PTFE AND POLYIMIDE-FILLED PTFE

	Air	Nitrogen (Dry)	Hydraulic Oil
K x 10-10	3.0	4.5	2.0
Cd	0.09	0.09	0.05
Cs	0.04	0.05	0.05
Weight Loss (gm) ¹ of Steel Washer	0.000	0.000	0.000

¹ Approximately 100 hour test