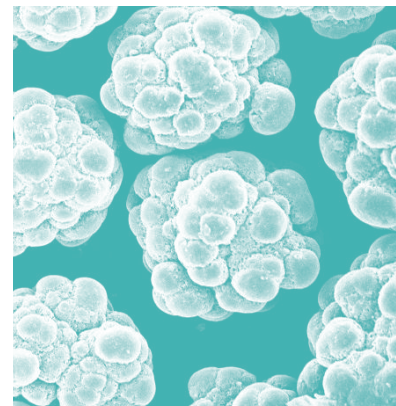


Ekonol® Case Study #1:



Relative Wear vs. % Ekonol® in PTFE

The graph below shows the relative wear of Ekonol® Polyester and PTFE composites made with different percentages of Ekonol®. The materials used for these composites were DuPont brand Teflon® and T101 Ekonol® brand Polyester. Test pieces were preformed at 8,000 PSI (55.2 MPa) and sintered at 680° F (360° C) for one hour per 0.125" (3.175mm) of effective thickness. The preliminary data indicated a range of preform pressures from 5,000 psi to 8,000 psi (32.9 MPa to 55.2 MPa) is sufficient to provide

optimum properties. The duration of the test was two hours at 110 psi (0.76 MPa), 90 fpm (27.4m/min) on an LFW-1 tester. The results show that the relative wear becomes asymptotic at about 25-30% Ekonol® in PTFE. A blend in the range of 20 to 30% appears to be optimum for wear resistance. The value for compression molded Ekonol® is approximately the same as the 50/50 blend with PTFE. This could indicate that the function of the PTFE is mainly to provide a matrix for the Ekonol® particles.

