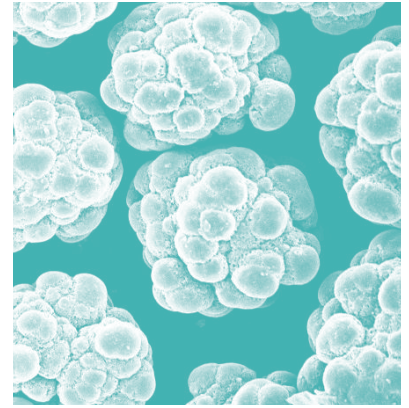


Ekonol® Case Study



Introduction to Ekonol® Polyester / PTFE composite case studies

Ekonol® Polyester is a very thermally stable polymer, making it easy to blend/fabricate with other high temperature materials. When combined with polytetrafluoroethylene (i.e. PTFE); it produces a composite material that has excellent temperature and wear resistance properties. The Ekonol® Polyester/PTFE blend will not wear metal surfaces and resists self-wear better than any other PTFE composition. Applications for Ekonol® Polyester/PTFE blends are varied and include packing sets, compressor ring sets, “O” ring seals, spring-loaded seals, lip seals, self-lubricating bearings and rotors or vanes of process pumps. Ekonol® Polyester/PTFE works best under environmentally tough conditions where wear resistance, dimensional stability and corrosion resistance are critical.

The percentage of Ekonol®, the particle size or grade and the molding conditions can impact the values for physical properties such as friction and wear. These results have been studied extensively and the results have been noted in the case studies. Ekonol® Polyester T101 was used for all samples tested in the case studies.

CASE STUDIES:

- Case Study #1:** Relative Wear vs. % Ekonol® in PTFE
- Case Study #2:** Coefficient of Friction vs. % Ekonol® in PTFE
- Case Study #3:** Effect of Temperature on Wear Properties
- Case Study #4:** Limiting PV for 25% Ekonol®/PTFE
- Case Study #5:** Wear Rate for 25% Ekonol®/PTFE and Polyimide-Filled PTFE
- Case Study #6:** Frictional Properties of 25% Ekonol®/PTFE in Various Environments
- Case Study #7:** K Factors for 25% Ekonol®/PTFE Running against Various Metal Surfaces
- Case Study #8:** Typical Electrical Properties
- Case Study #9:** Typical Physical Properties
- Case Study #10:** Typical Chemical Resistance Properties