

The Difference in Performance Between Sintered and Unsintered Ultra High Molecular Weight Polyethylene Runner Base

Torgerson, Maria (School: Bozeman High School)

This study examined the difference in performance between a sintered and unsintered UHMWPE runner base. Each runner base sample's Coefficient of friction was tested before and after 10 miles of snow friction exposure. It was hypothesised that the sintered UHMWPE would hold the wax amount more efficiently thus resulting in a better performance, not including other influencing variables. Through careful experimentation it was concluded that the difference in the COF before and after 10 miles of snow friction exposure were so similar that the data was inconclusive. However the sintered UHMWPE had a better overall COF after 10 miles of snow friction exposure so it can be determined that through a larger data set that the sintered UHMWPE has a better performance.