

**Project:** Rotating wear tests - foils

**Task:** In this laboratory report the wear behaviour of foils was examined against different counter partners (shafts).

Test description and results:

The tests were carried out with the following parameters:

Foils: iglidur A160, iglidur V400 and PTFE  
 Counter partners: Stainless steel, glass (here soda-lime glass), PET, and paper  
 Load: 10 N  
 Speed: 0.22 m/s  
 Temperature: 23°C

The results of the investigation are presented in the following two diagrams.

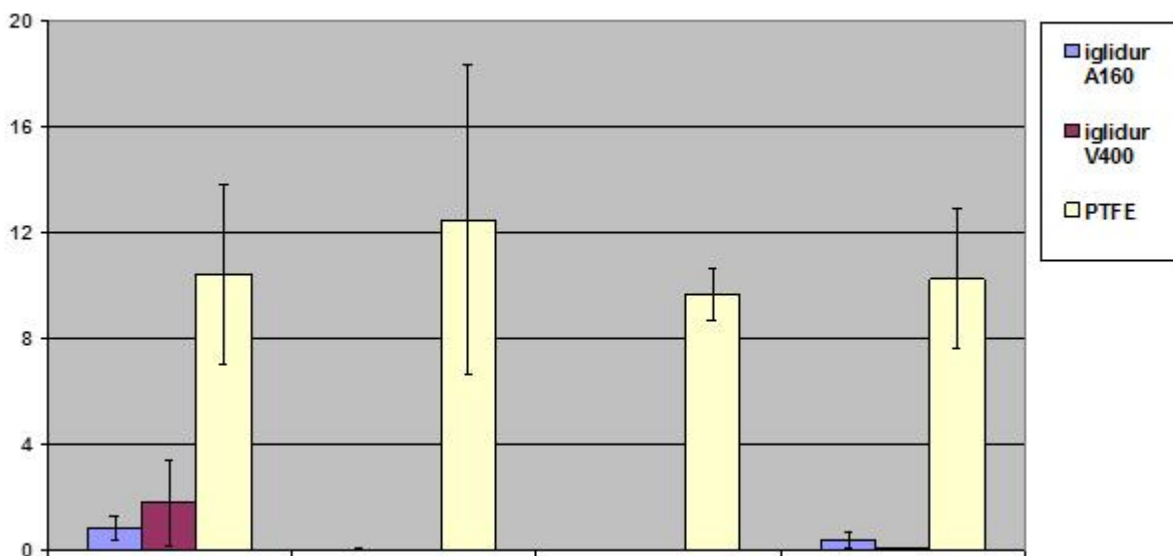


Diagram 1: Result of wear tests – complete

**Title** Rotary wear – foil test stand F=10N, v= 0.22m7S, T=23°C  
**X axis** Counter partner (1.4305, soda-lime glass, PET, paper)  
**Y axis** Loss of mass due to wear (mg/km)

Diagram 2: Result of the wear test – Enlarged excerpt

The above specifications show the results of performed tests. All specifications are neither one or more guarantees of specific properties nor one or more guarantees about the suitability of a product for a particular purpose, since the tests took place under laboratory conditions. The guarantee of specific properties of the products and/or its suitability for a particular application must be in written form in the order confirmation. As the results were obtained under laboratory conditions that can almost never simulate the real use, we recommend application-specific measurements under real operating conditions.

Table 1: Measured values

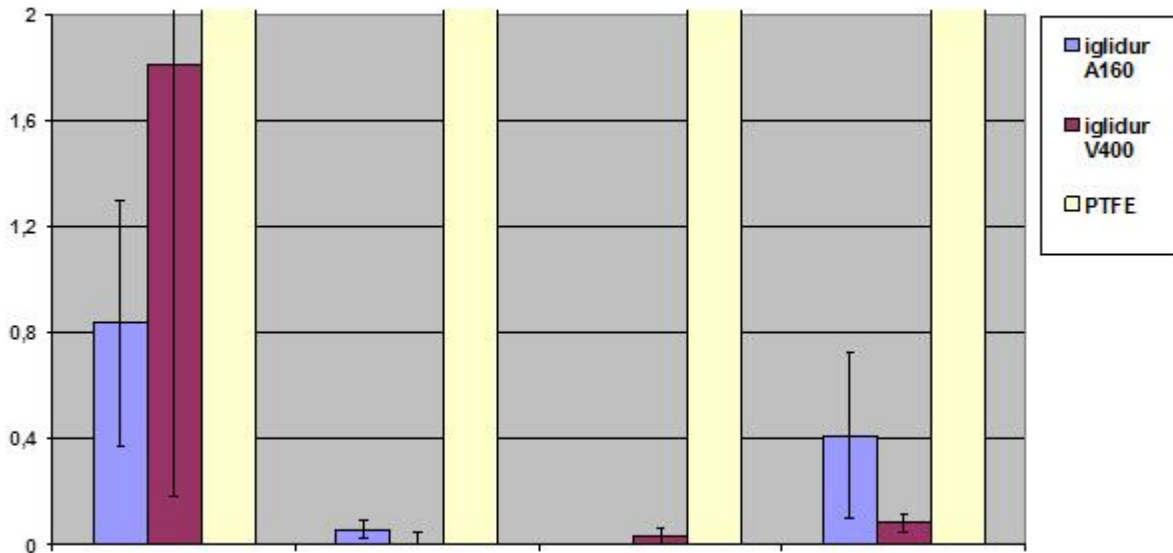


Diagram 2: Result of the wear test – Enlarged excerpt  
 Title Rotary wear – foil test stand  $F=10N$ ,  $v= 0.22m7S$ ,  $T=23^{\circ}C$   
 X axis Counter partner (1.4305, soda-lime glass, PET, paper)  
 Y axis Loss of mass due to wear (mg/km)

**Conclusion:**

The tests with the PTFE foil, the current solution in the application, show an extremely high rate of wear against all counter partners. Compared with the PTFE foil, the two materials, iglidur® A160 and iglidur® V400, show significantly lower wear rates, see diagram 1 and 2.

The above specifications show the results of performed tests. All specifications are neither one or more guarantees of specific properties nor one or more guarantees about the suitability of a product for a particular purpose, since the tests took place under laboratory conditions. The guarantee of specific properties of the products and/or its suitability for a particular application must be in written form in the order confirmation. As the results were obtained under laboratory conditions that can almost never simulate the real use, we recommend application-specific measurements under real operating conditions.