drylin® R on wooden shafts

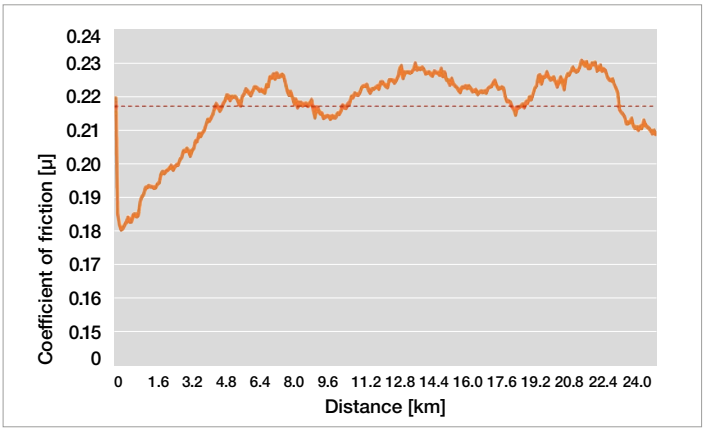
Study: igus® materials on wooden shafts

Sustainable thinking ahead

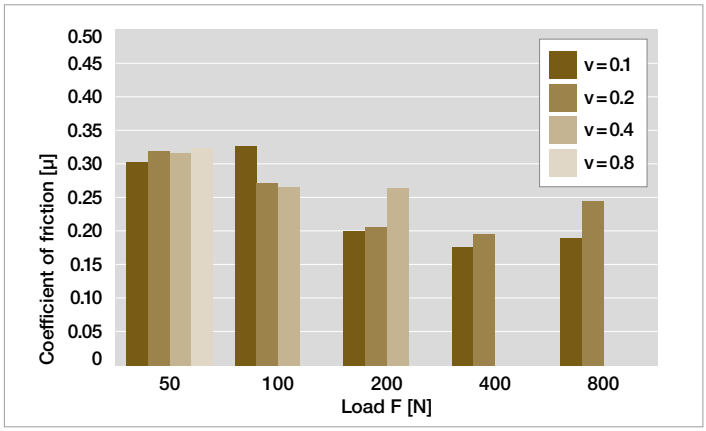
We have carried out various tests on the coefficient of friction and the wear rate of our materials. Plain bearings and liners made from the materials iglidur® J and J4 were tested on various wooden shafts and compared with metal shafts.

- Metal-free linear guide
- Extremely lightweight components
- Friction test of iglidur® J4 liner on round shafts made of different woods, Ø 20mm, load 200N, 0.1m/s, determined coefficient of friction 0.2 - 0.25µ
- Round shafts made from renewable raw materials

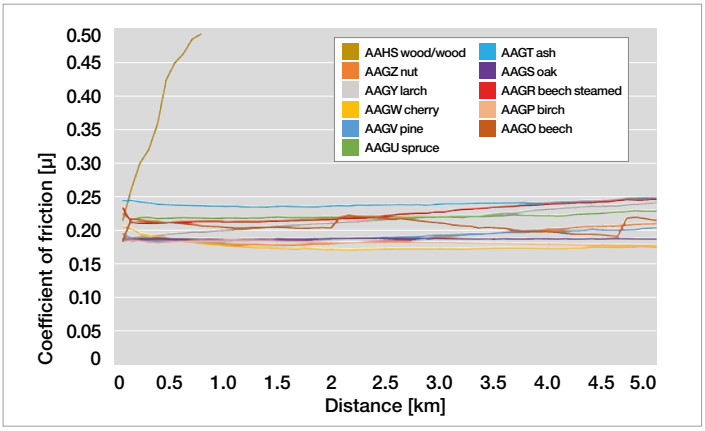
Proof



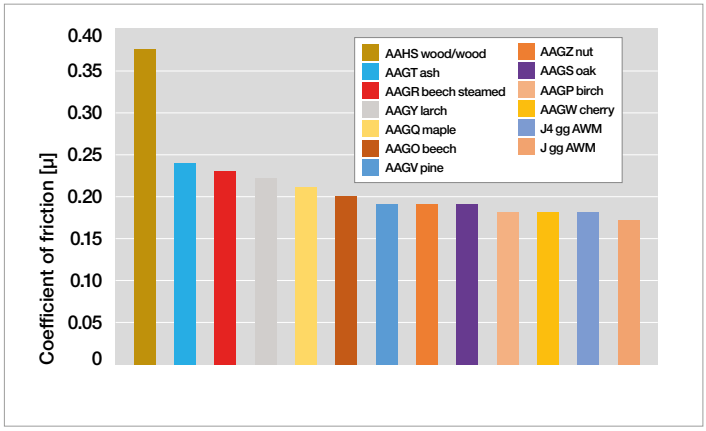
Coefficient of friction of drylin® JUM-01-20.5 against beech shaft, load = 50N; v = 0.1



Coefficient of friction of iglidur® JSM-01-20.5 against beech shaft



Coefficient of friction of drylin® J4UM-01-20.5 against wooden shafts (Ø 20mm), horizontal ring orientation 200N; 0.1m/s; distance 5km (no running in)



Coefficient of friction of drylin® J4UM-01-20.5 against wood in 20mm rail, horizontal ring orientation 200N; 0.1m/s; distance 5km (no running in)

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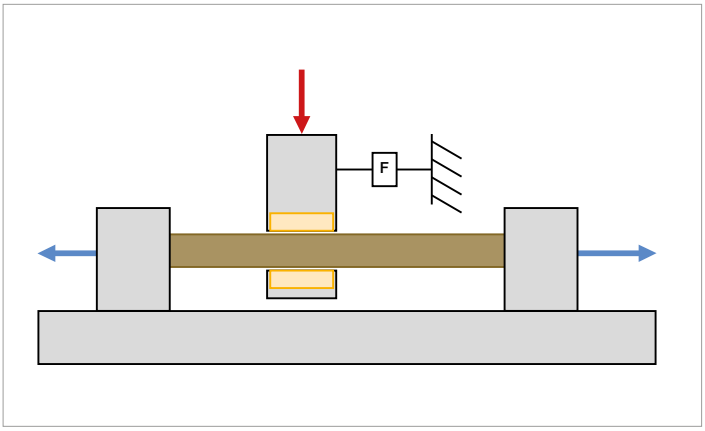
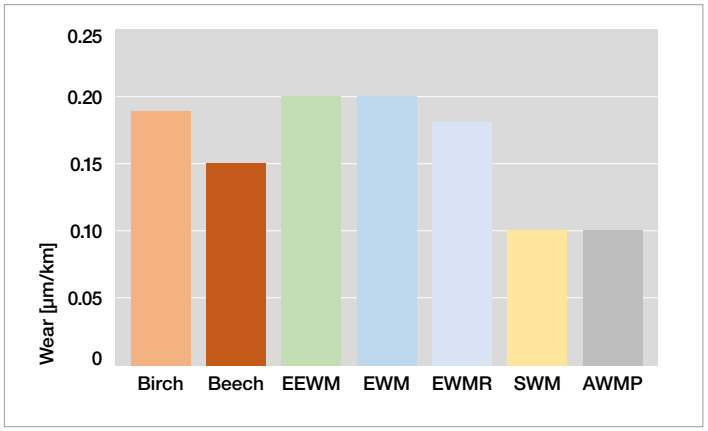
Proof



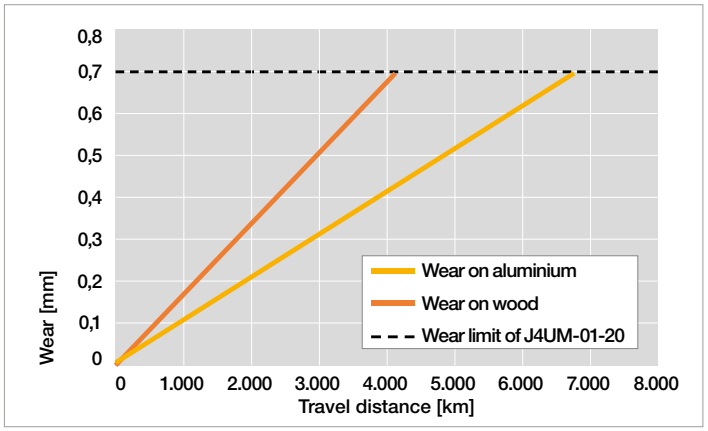
Coefficient of friction: test setup

Coefficient of wear calculation

Bending test



Wear of drylin® J4UM-01-20.5 against wooden shafts at 50N; distance 500km and drylin® J4UM-02-20 against metal shafts at 38N; distance 500km



Wear of drylin® J4UM-01-20 against wooden and aluminium shafts at 50N and 0.3m/s speed; distance: 500km