

Coefficient of Friction

Principle:

The coefficient of friction is a dimensionless scalar value which describes the ratio of the force of friction between two bodies and the force pressing them together. They range from near zero to greater than one depending on the types of materials used.

There are essentially two kind of coefficients: static and dynamic/kinetic.

The coefficient of static friction is determined from a ratio of the maximum static force (F) between the surfaces before any movements occurs to the normal (N) force.

The dynamic/kinetic coefficient of friction is determined from the ratio of the kinetic forc (F) between the surfaces while one surface is moving across the other to the normal force F_i/N .

Current models:

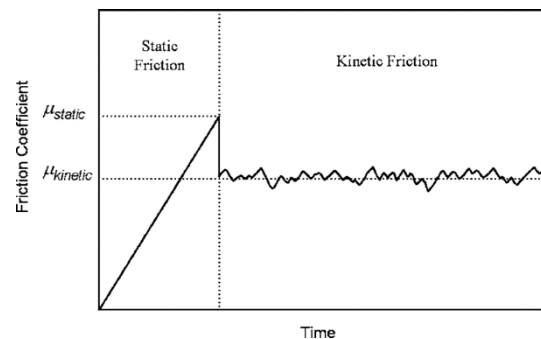
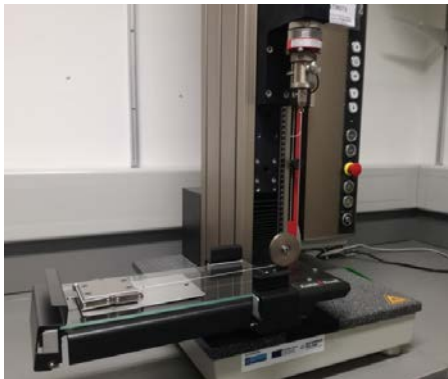


Figure: Graph of Friction Coefficient vs.

Figure: Zwick Roell Zwickline Z5.0 TN for flexible low force testing machine.

Video Link: <https://www.youtube.com/watch?v=QCbpiPfm6xg>

The Zwick Roell Zwickline testing machine is a flexible and cost-efficient testing solution for a range of materials and components. It is ideal for research and development, as well as quality assurance testing.

Typical samples:

Samples that are tested by the machine include plastics, elastomers, metals, components or the medical engineering and pharmaceutical industry.



Instrument Description

Sub Folder: Physical Analysis



Standards:

Samples can be assessed in accordance with the other international standards ASTM 1894 and ISO 8295.

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