

Fachbereich Angewandte Naturwissenschaften



Studiengang:

Physikalische Technik

Bachelor Abschlussarbeit

Thema:

Study of Structure – Property Relationship of Silicone Gels with Focus on their Rheological Behavior

Zusammenfassung:

This study analyzes the structure - property relationship of silicone gels with focus on their rheological behavior. The values gained from four different experiments show the hardness, adhesion and viscoelastic behavior of the measured silicone gels. The experiments are analyzed regarding their reproducibility and repeatability.

The resulting data about adhesion, hardness and viscoelastic behavior is examined in terms of correlations with each other, as well as the correlation between the material properties and the raw materials which the gels are made of. These correlations are analyzed and compared to the expectations and experiences, lastly all results are summarized in a gel bibliography.

Verfasser /in: Jessica Maren Schmidt

Betreuer /in: Dr. Lisa Sheppard, Professor Manfred Rößle

Datum der Abgabe: 31. Mai 2022