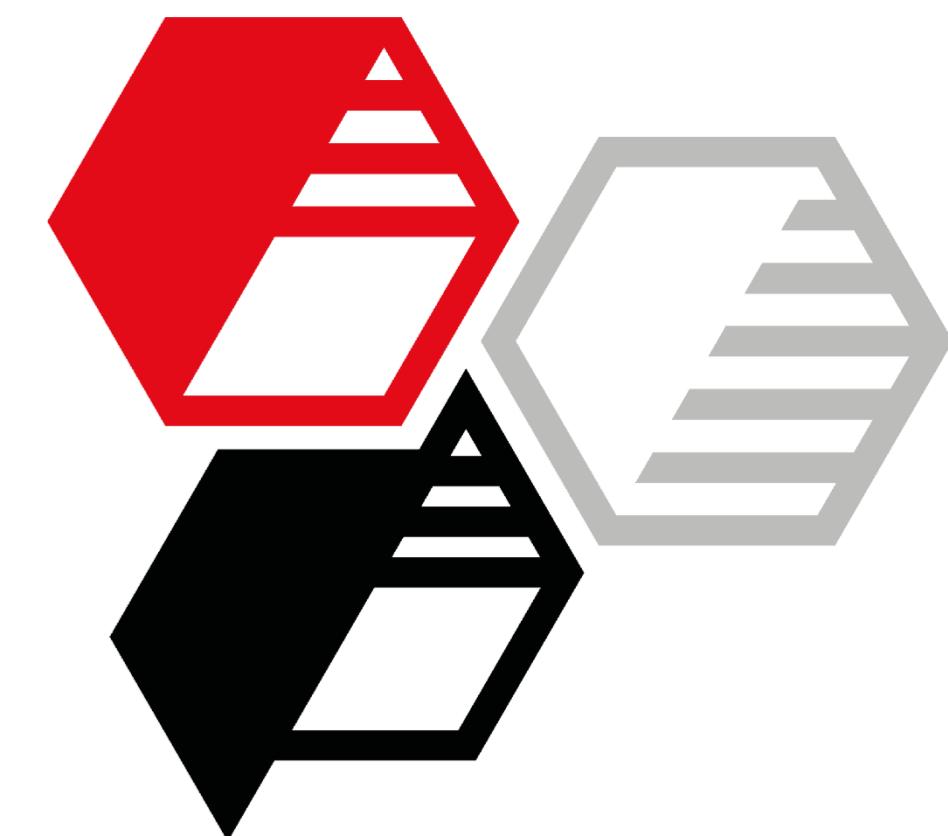
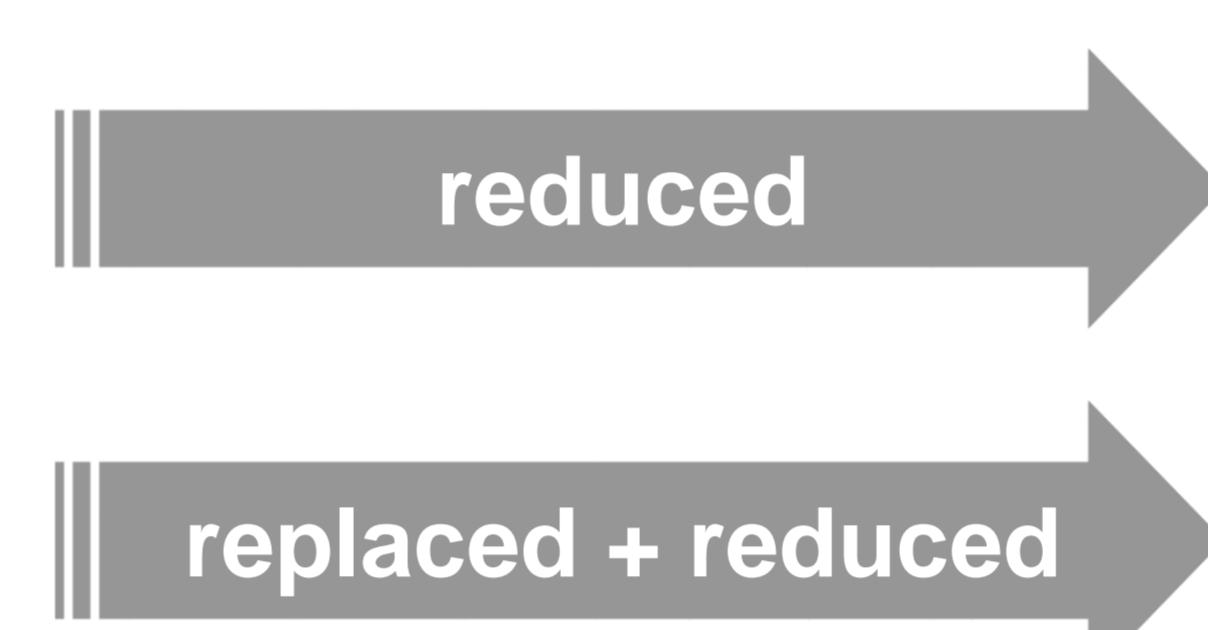


# Neuburg Siliceous Earth vs. calcium carbonate silane-terminated polyether polymer high strength e. g. parquet adhesive



## Formulation

| Control Formulation with GCC                                 |                      | pbw or % by weight | Neuburg Siliceous Earth |              |
|--|----------------------|--------------------|-------------------------|--------------|
|  |                      |                    | pbw                     | % by weight  |
| GENIOSIL® STP-E 10<br>Silane-terminated polyether            | Polymer              | 25.5               | 25.5                    | 27.6         |
| Caradol ED 56-200<br>Polypropylene glycol                    | Plasticizer          | 15.0               | 15.0                    | 16.2         |
| GENIOSIL® XL 10<br>Vinyl silane                              | Drying agent         | 2.0                | 2.0                     | 2.2          |
| HDK H 18<br>Fumed silica                                     | Rheological Additive | 2.5                | 2.0                     | 2.2          |
| GCC ( $d_{50} = 5 \mu\text{m}$ )<br>Ground calcium carbonate | Filler               | 54.0               | 47.0                    | 50.7         |
| GENIOSIL® GF 96<br>Amino silane                              | Adhesion promoter    | 1.0                | 1.0                     | 1.1          |
| <b>Total</b>   |                      | <b>100.0</b>       | <b>92.5</b>             | <b>100.0</b> |



## Filler recommendation

- very cost-effective
- high strength

**Sillitin V 85**

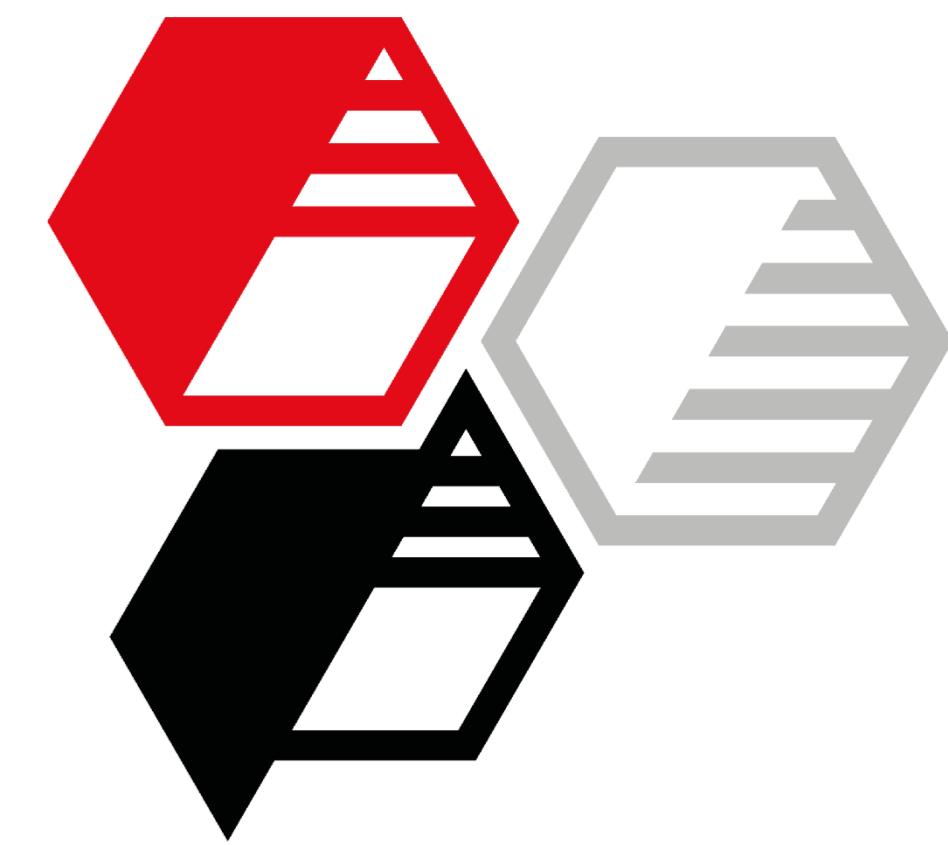
- low moisture content
- white and color-neutral
- cost-effective
- very high strength

**Silfit Z 91**

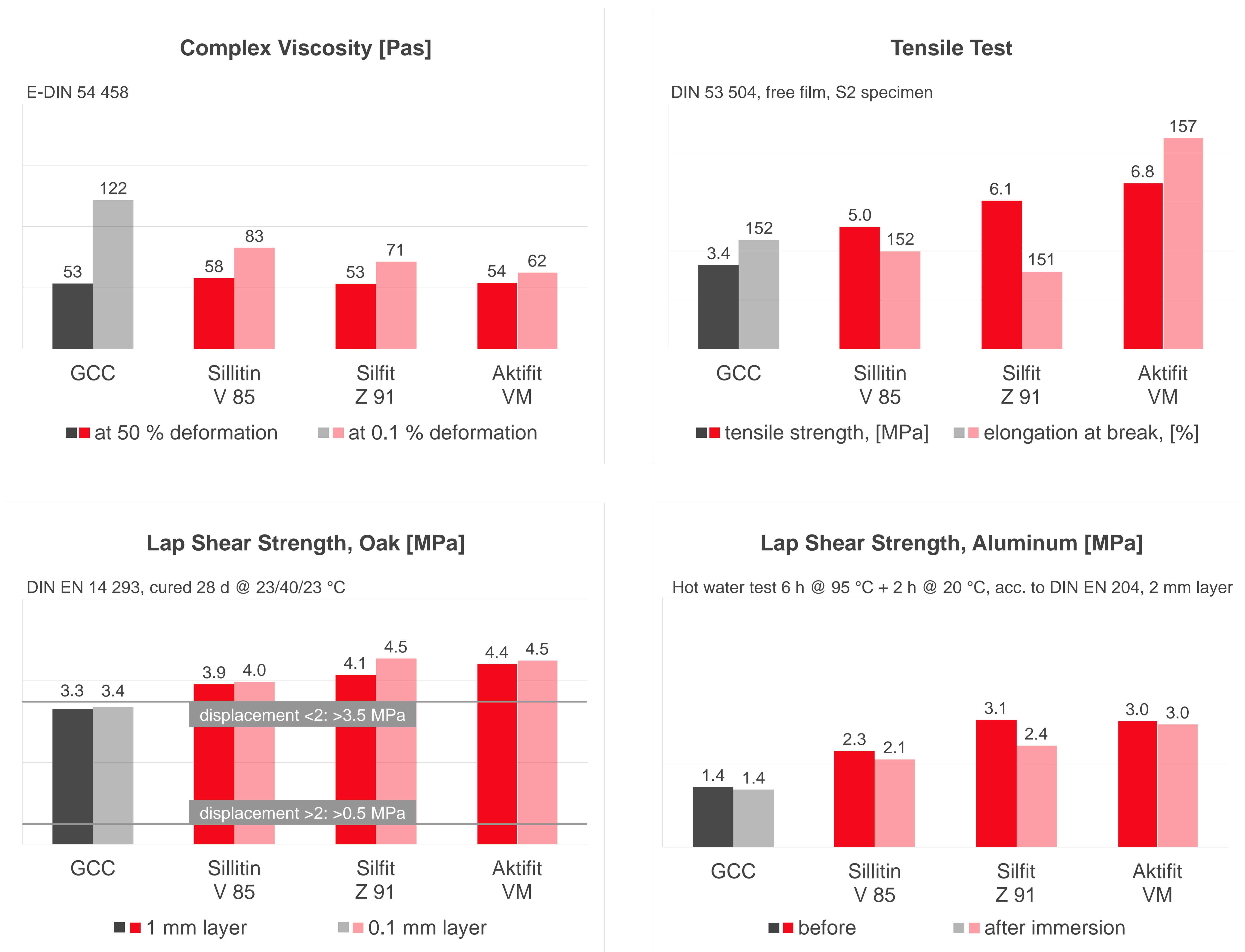
- very low moisture content
- extremely low moisture absorption even under humid conditions
- white and color-neutral
- very high strength
- excellent hot water resistance

**Aktifit VM**

# Neuburg Siliceous Earth vs. calcium carbonate silane-terminated polyether polymer high strength e. g. parquet adhesive



## Results



## Benefits

Benefits of NEUBURG SILICEOUS EARTH compared to calcium carbonate:

- rheology can be adjusted via filler and fumed silica content
- higher tensile strength along with similar elongation at break
- markedly higher lap shear strength
- high lap shear strength remains even after immersion in hot water
- formulations with Neuburg Siliceous Earth meet the requirements of DIN EN 14293 for „soft“ as well as „hard“ adhesives