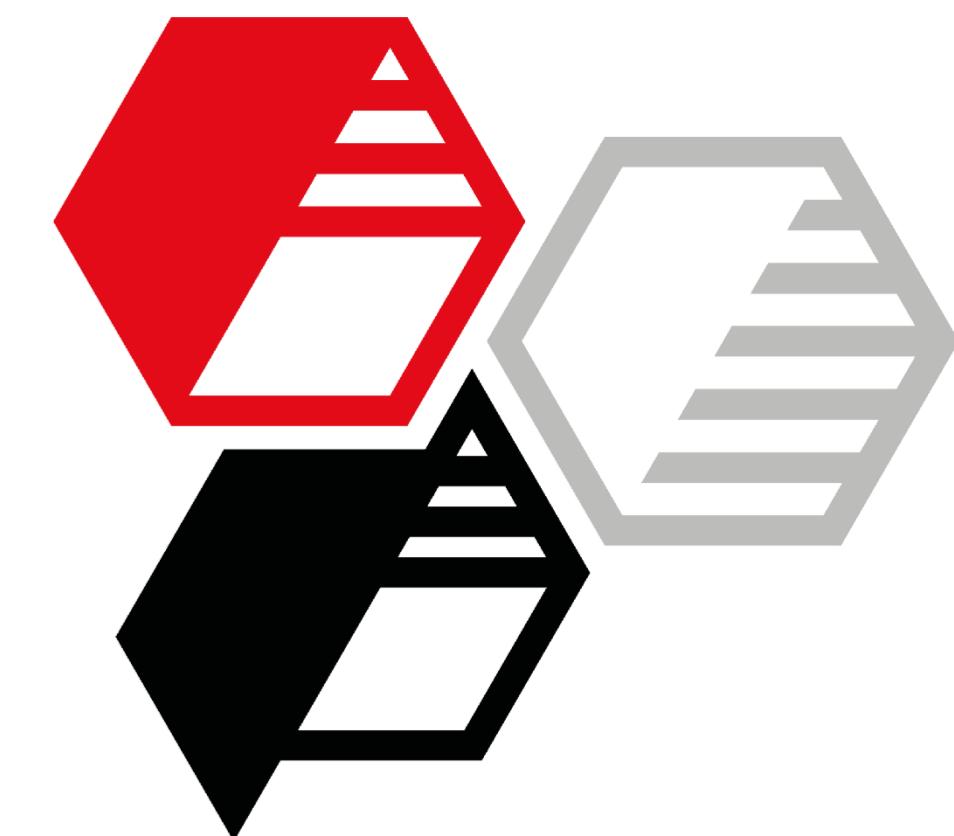


Calcined Neuburg Siliceous Earth in adhesives based on silane-terminated polyurethanes (STP-U)



Objective

Improvement of strength and rheology vs. calcium carbonate



Formulation

		% by weight
Desmoseal S XP 2821	Polymer: silane terminated polyurethane	38.88
Irganox 1135	Antioxidant	0.46
Bayferrox 415	Yellow pigment	0.28
Cab-O-Sil TS 720	Rheological additive: fumed silica	0.95
Filler		53.71
Dynasylan VTMO	Drying agent: vinyl silane	2.61
DBU	Catalyst	0.11
Dynasylan 1146	Adhesion promoter: amino silane	1.50
Dynasylan AMEO	Adhesion promoter: amino silane	1.50
Total		100.00

Filler recommendation

Silfit Z 91

cost effective
good mechanical
properties

Aktifit PF 111

very low and constant
moisture
rheology control
high strength, elongation
at break and tear
resistance

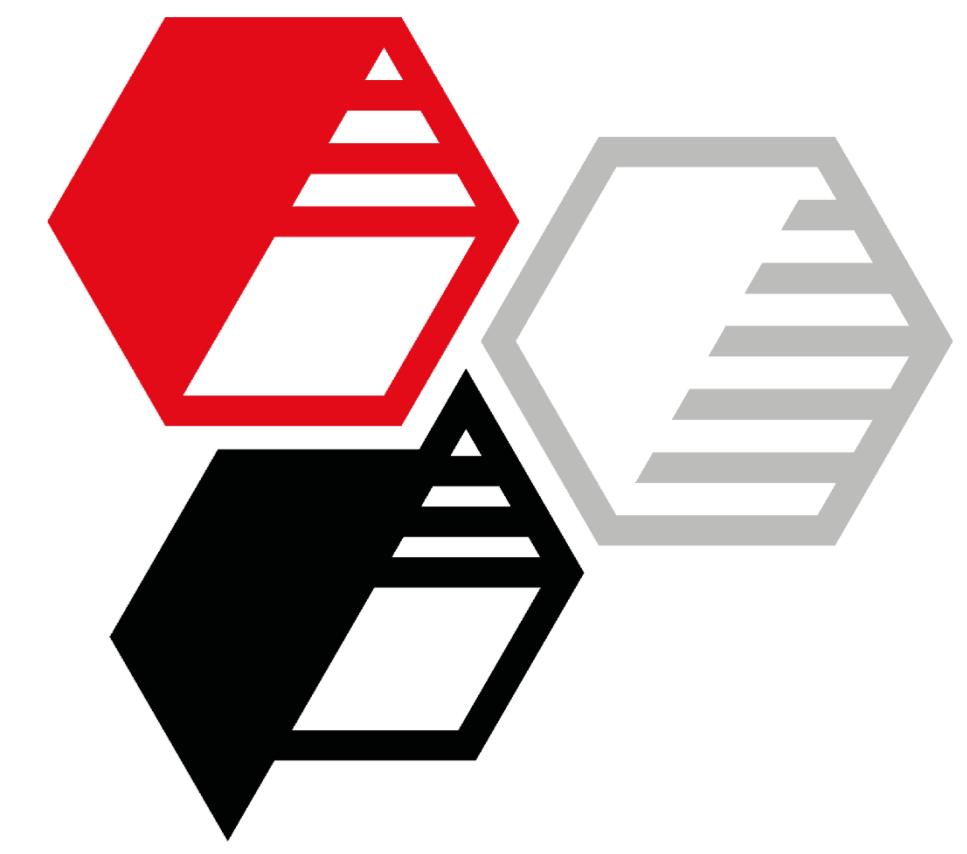
Aktifit PF 115

very low and constant
moisture
for highest requirements
on lap shear strength

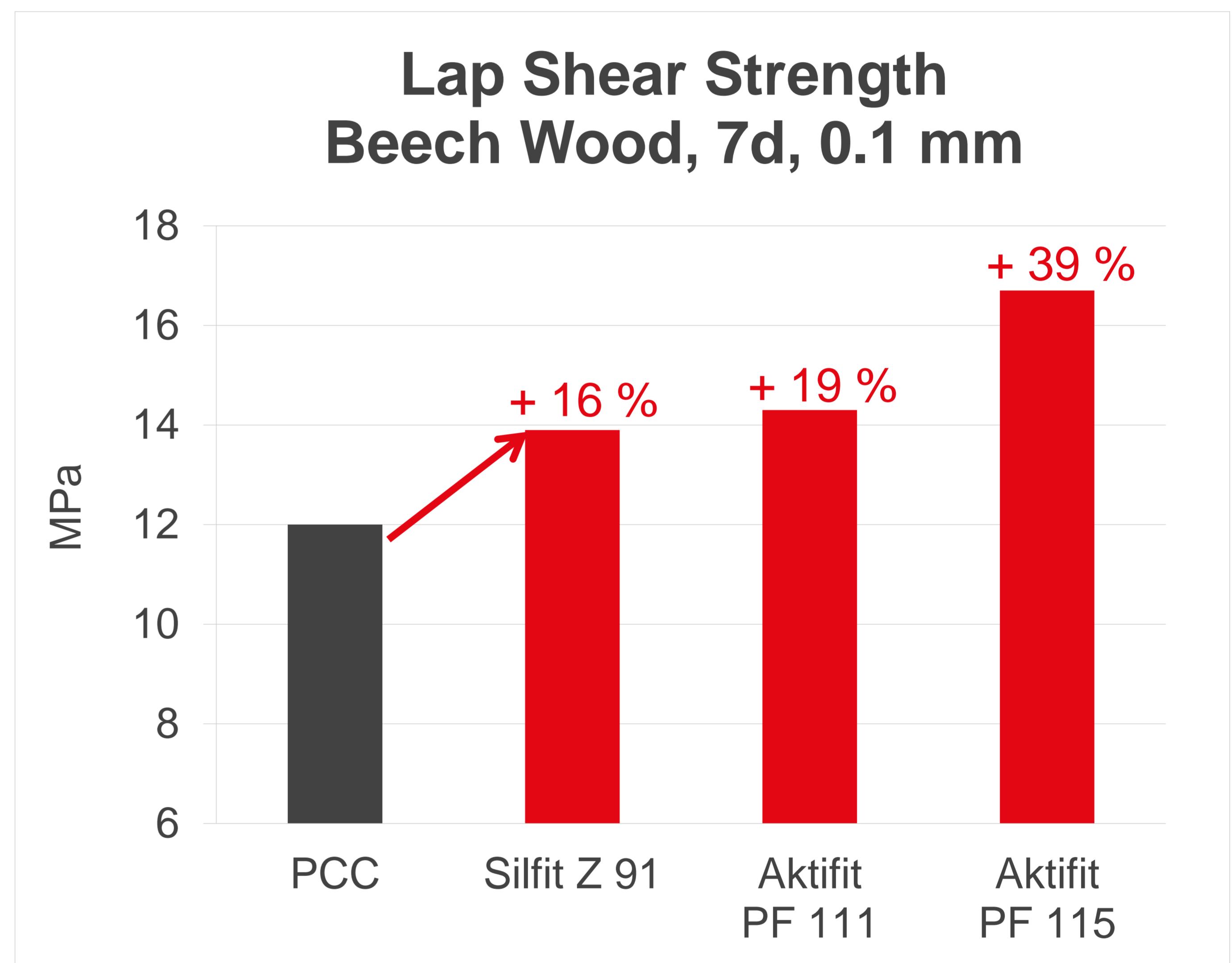
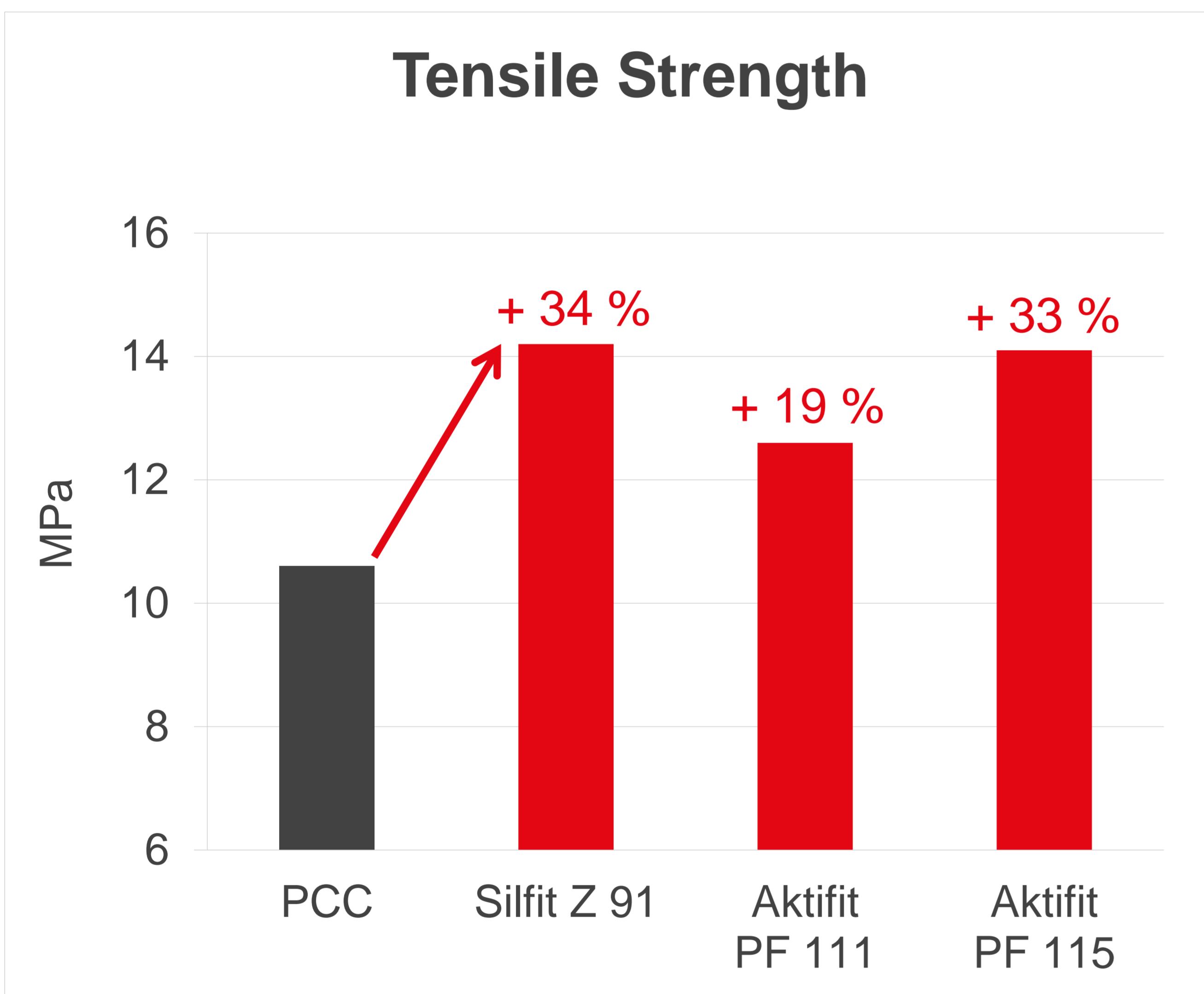
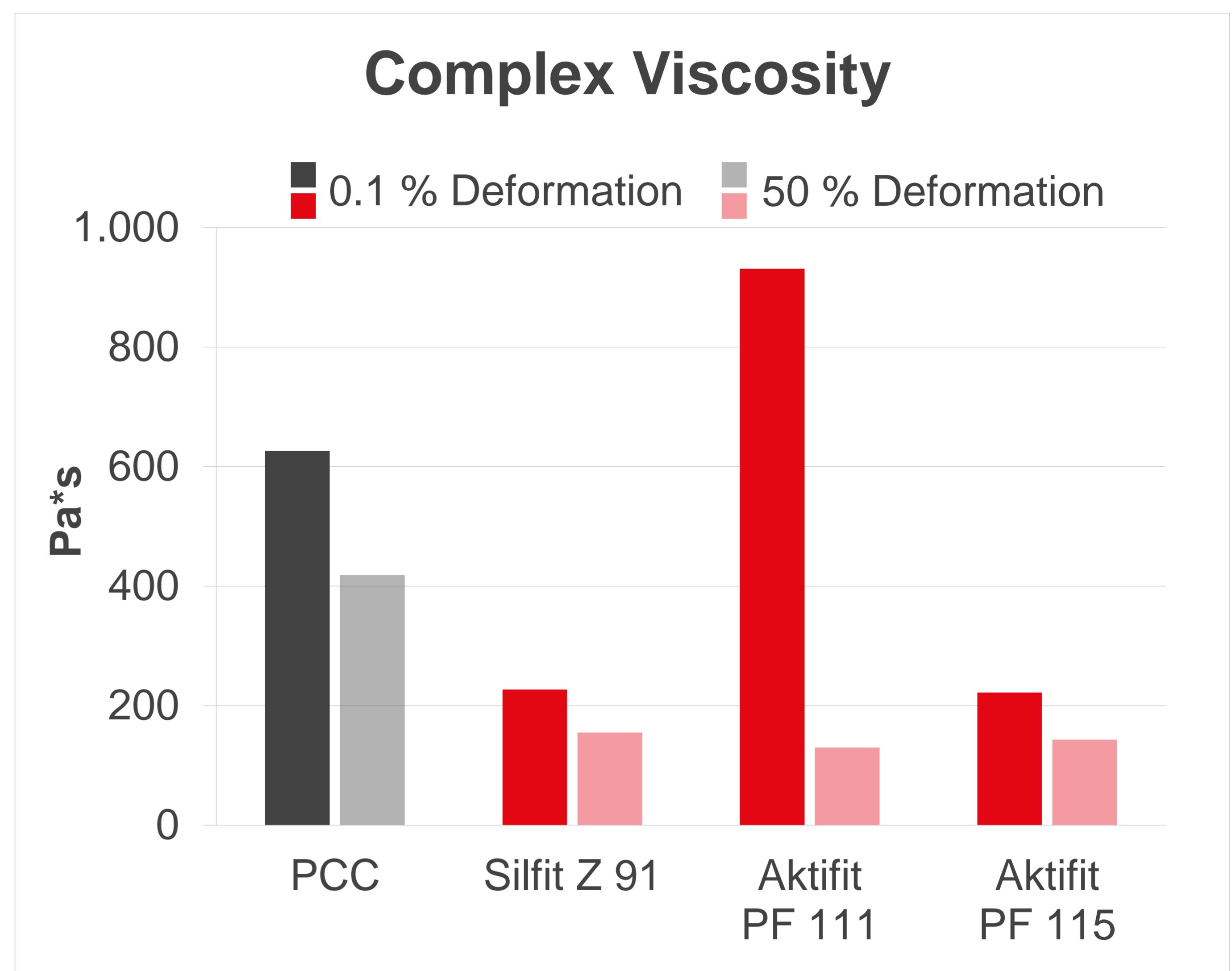
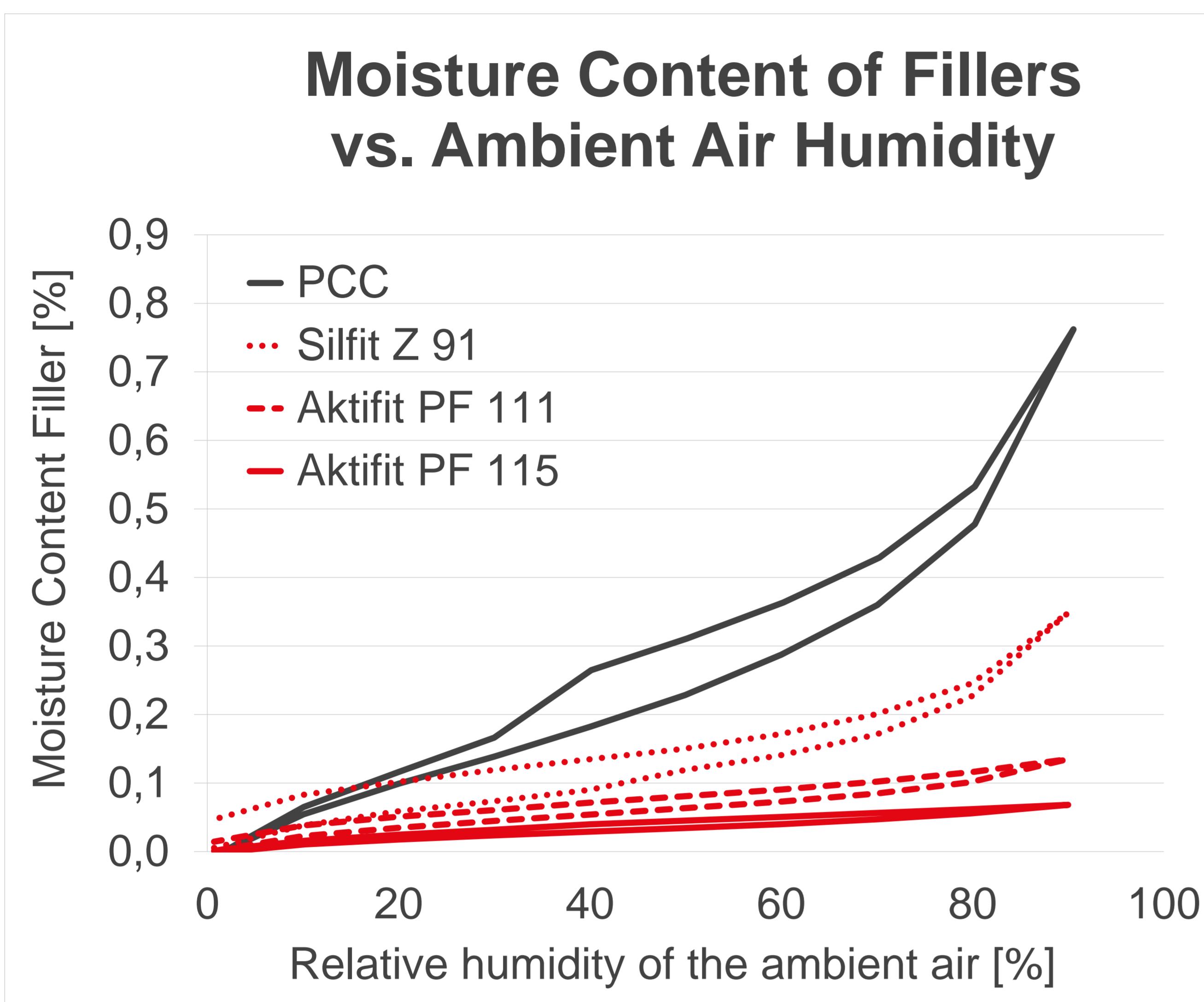
Basis: Guide formulation BBB 7507 by Covestro

2/02.2019 (TB/PP – CNSE in STP-U)

Calcined Neuburg Siliceous Earth in adhesives based on silane-terminated polyurethanes (STP-U)



Results



Summary

Benefits of **Neuburg siliceous earth** compared to precipitated calcium carbonate:

- ✓ Very low moisture content and very low moisture absorption even under humid conditions (especially with Aktifit PF 111 and Aktifit PF 115)
- ✓ Significant lower viscosity at higher deformation, thereby easier application
- ✓ Viscosity at low deformation / yield point variably adjustable
- ✓ Potential for reducing rheological additive fumed silica
- ✓ High hardness
- ✓ Increased tensile strength of up to 14 MPa
- ✓ Marked increase of lap shear strength, more than 16 MPa are possible