

NEUBURG SILICEOUS EARTH IN 2C-EPOXY SYSTEMS RHEOLOGY CONTROL WITH AKTISIL PF 777

FORMULATION

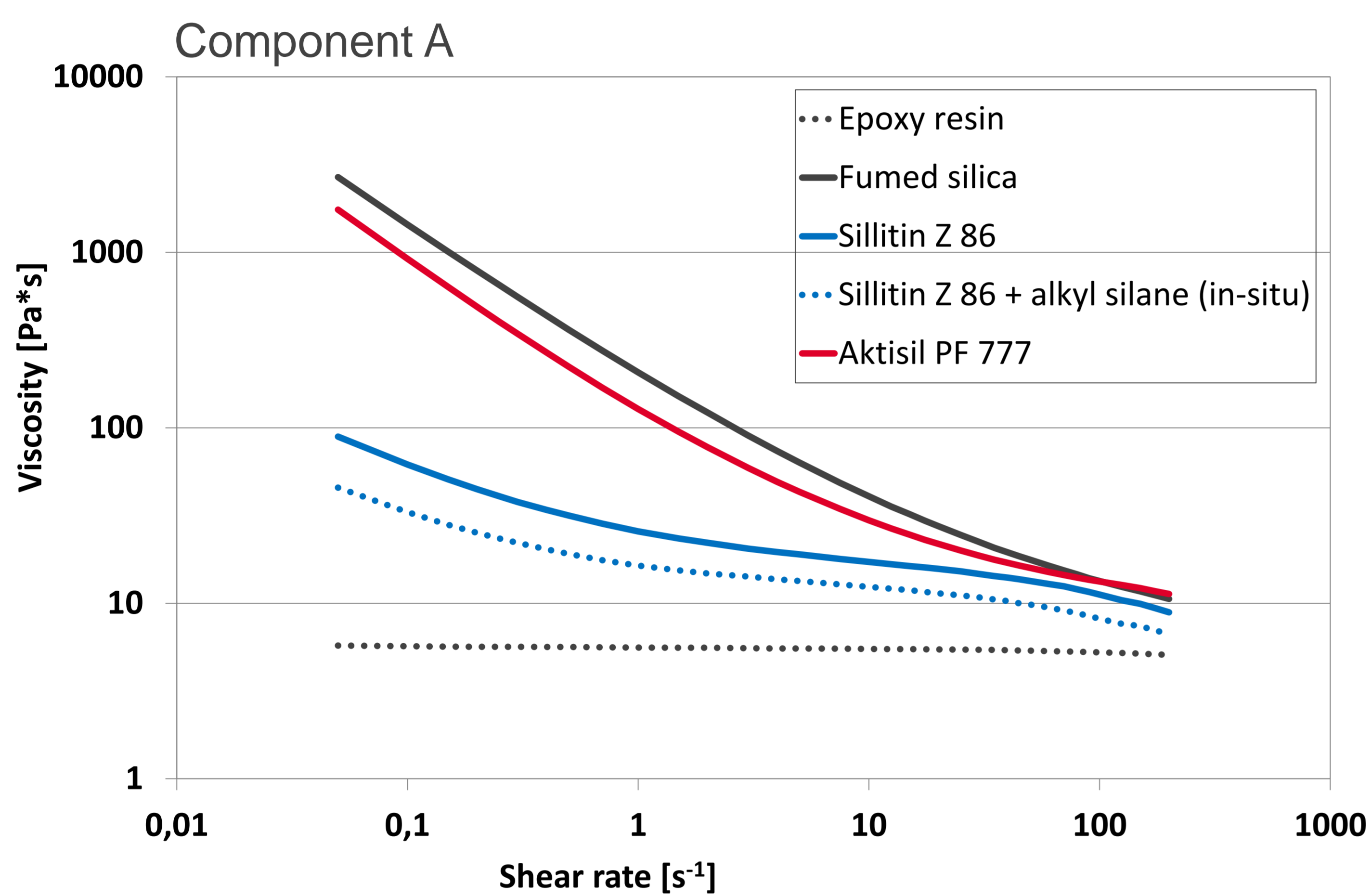
	Fumed silica	Neuburg Siliceous Earth
Bakelite EPR 161 Liquid unmodified epoxy resin; Bisphenol F type, EEW approx. 170	100	100
Rheology modifier / Filler	4.5	50
Total parts by weight (pbw)	104.5	150

The filler was incorporated into the epoxy resin and dispersed in a planetary mixer for 20 minutes with 17 m/s circumferential speed under vacuum.

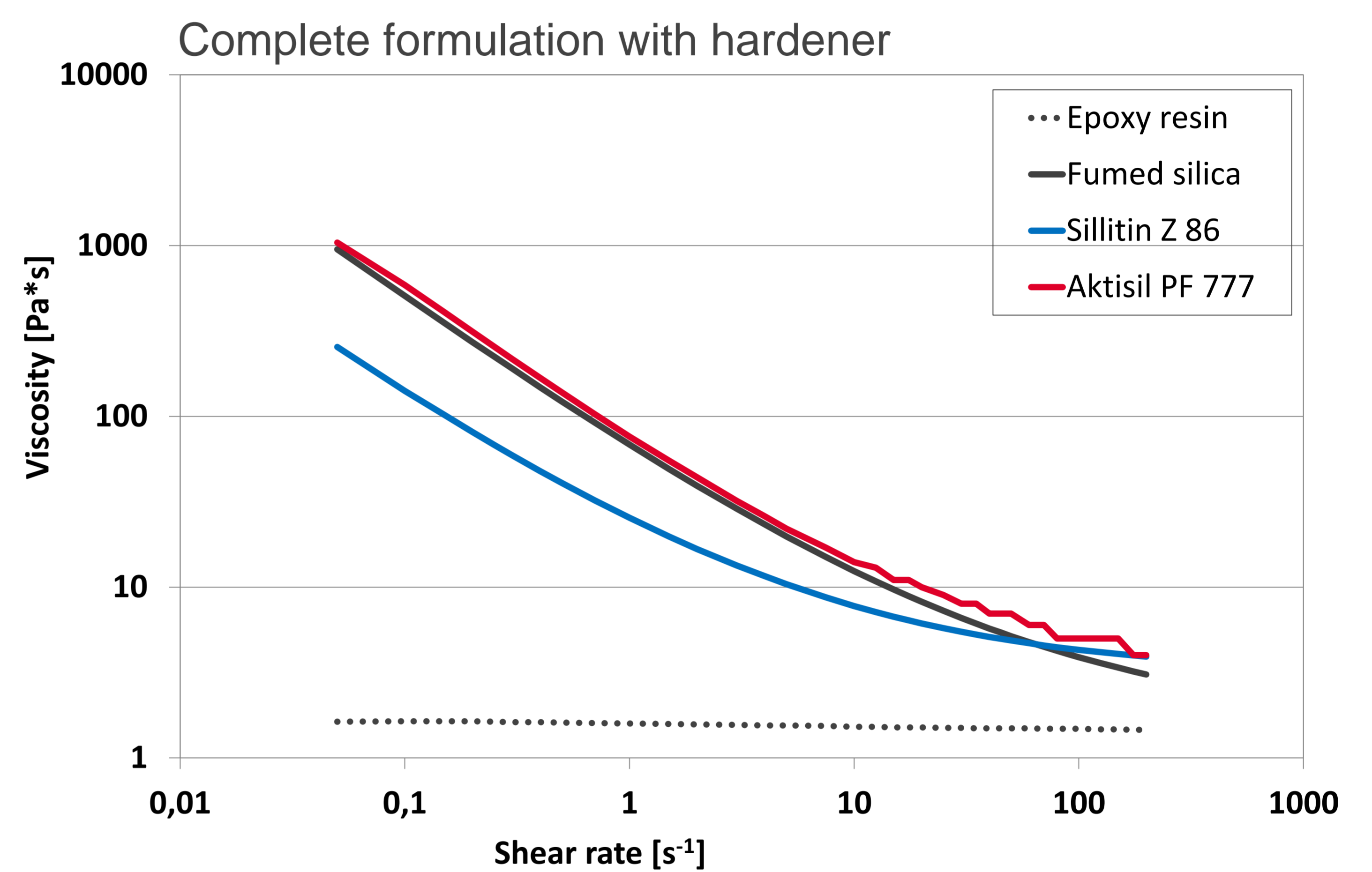
Hardener: TETA (triethylene tetramine) Mixing ratio: 14.5 pbw to 100 pbw epoxy resin

RESULTS

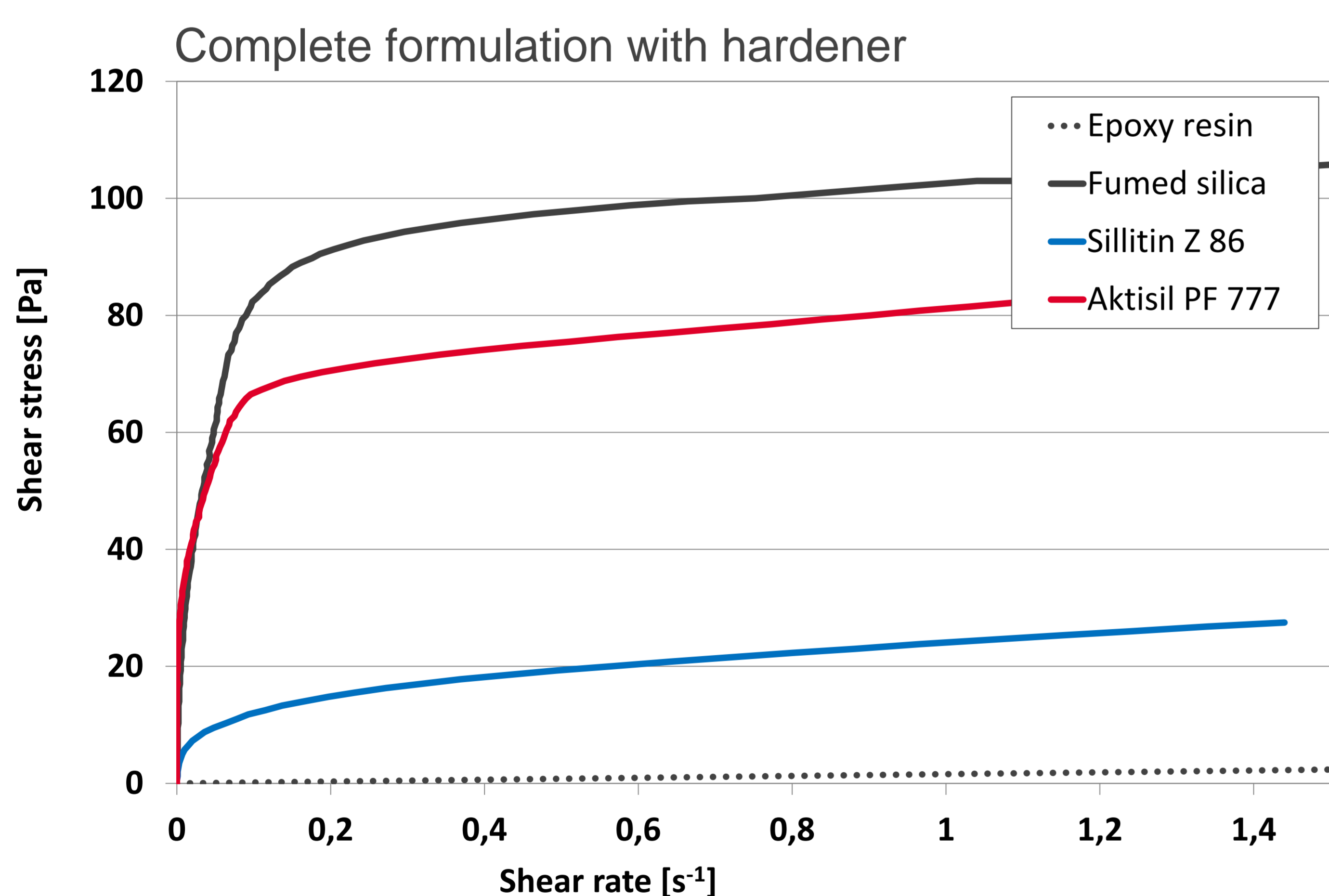
Viscosity



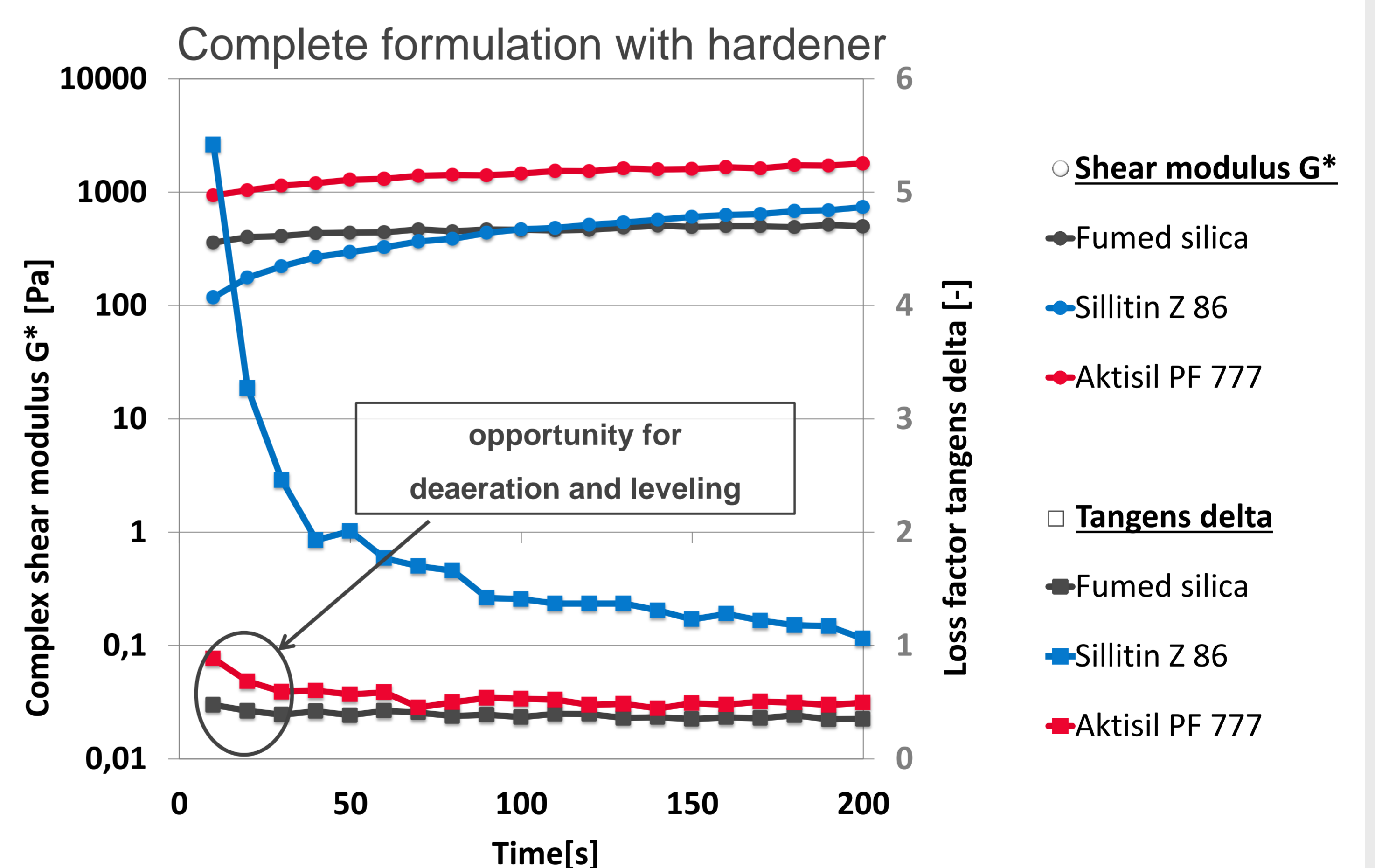
Viscosity



Yield Point



Recovery after Structure Breakdown by Shearing



SUMMARY

Aktisil PF 777 offers

- easier and more precise dosing in view of the higher amount added
- markedly lower tendency towards dust formation
- favorable time window for efficient deaeration as a result of the delayed structure recovery after shearing
- cost reduction potential

Additional benefits of Aktisil PF 777

- as a result of the hydrophobic nature, good wetting and easy dispersion in binders of low polarity
- improved corrosion protection
- increased resistance to chemicals and moisture
- very low or no sedimentation tendency