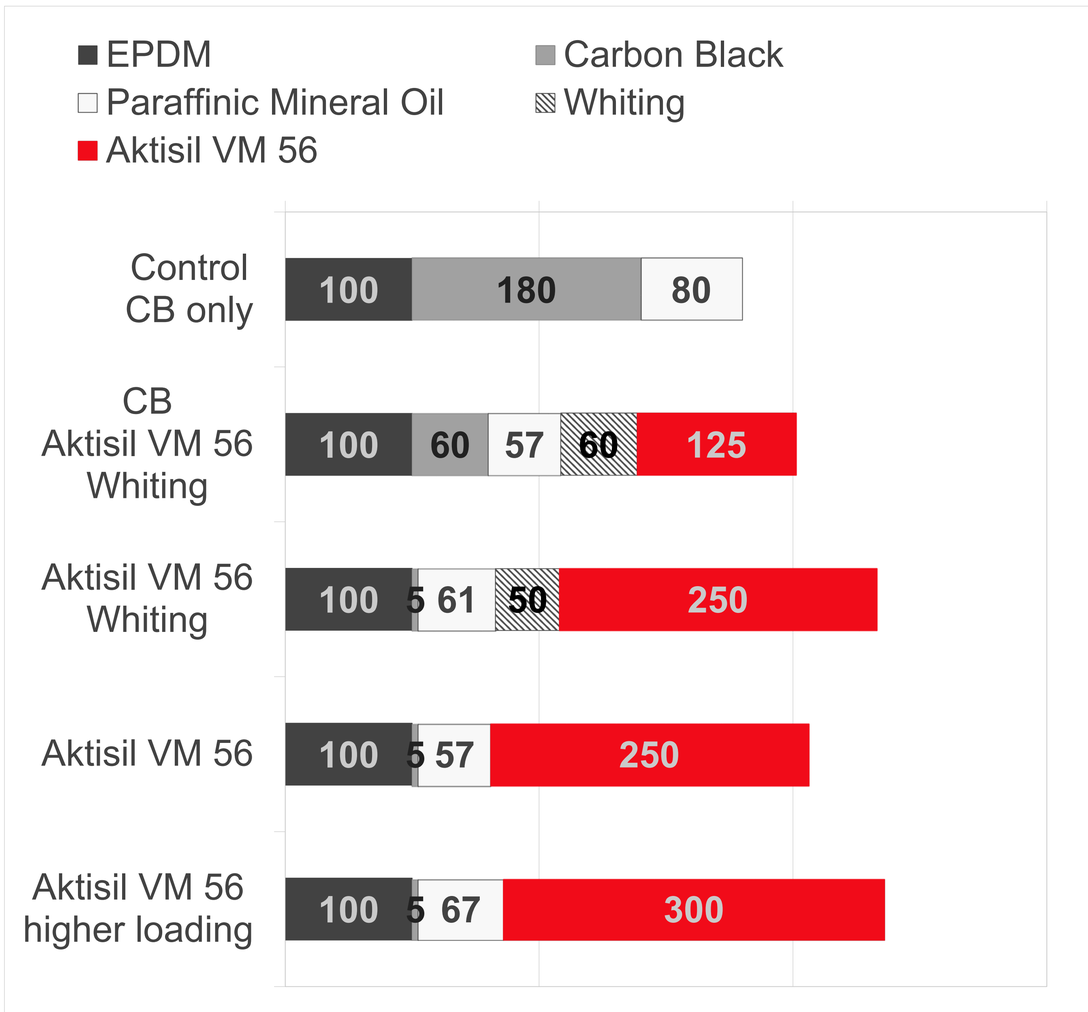
Neuburg Siliceous Earth (Aktisil VM 56) in black building profiles alternatives to carbon black

Formulation

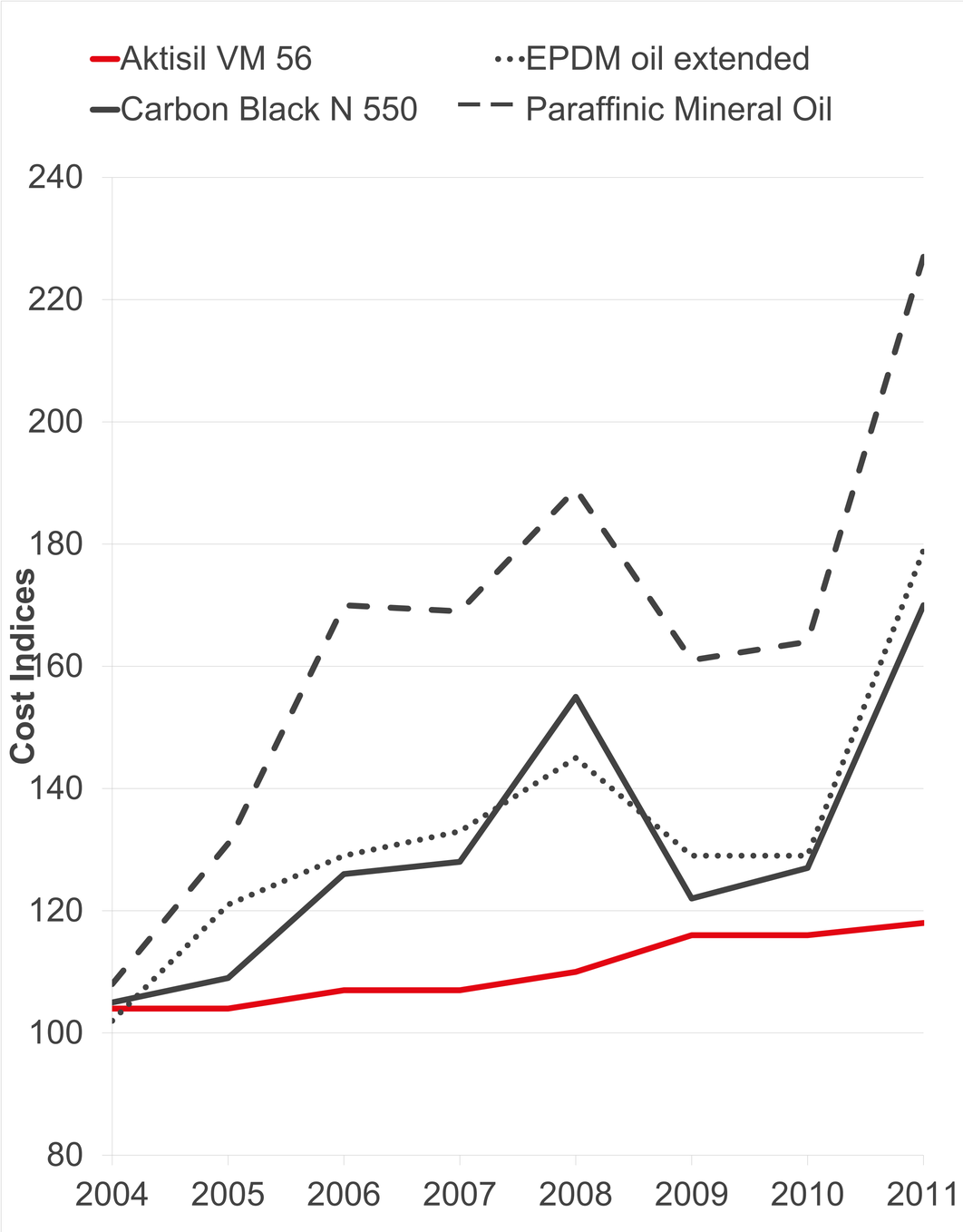
Base Formulation

	in phr
Keltan 8340 A (EPDM)	100.0
PEG 4000	2.0
Processing Aid	3.0
Carbon Black N 550	varied
Paraffinic Mineral Oil	varied
Whiting	varied
Aktisil VM 56	varied
CaO	10.0
TAC GR 50 %	3.0
Perkadox 14/40 pd	8.0

Formulation Variations [phr]



Cost Development 2002 – 2011



Control

Carbon Black only

CB, Aktisil VM 56, Whiting

Carbon Black partially replaced by AKTISIL VM 56, contains Whiting

Aktisil VM 56, Whiting *

Carbon Black totally replaced by AKTISIL VM 56, contains Whiting

Aktisil VM 56 *

Carbon Black totally replaced by AKTISIL VM 56, no Whiting

Aktisil VM 56, higher loading *

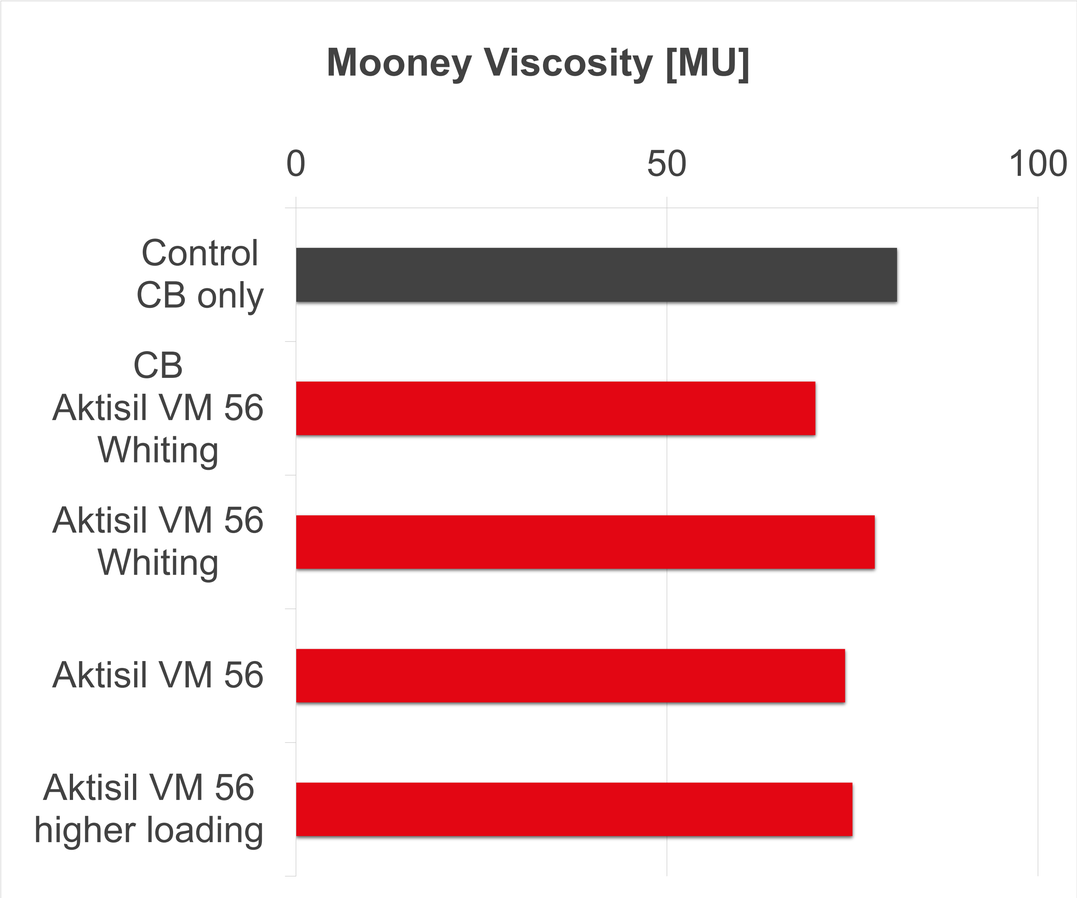
Carbon Black totally replaced by AKTISIL VM 56 in a higher filler and oil loading, no Whiting

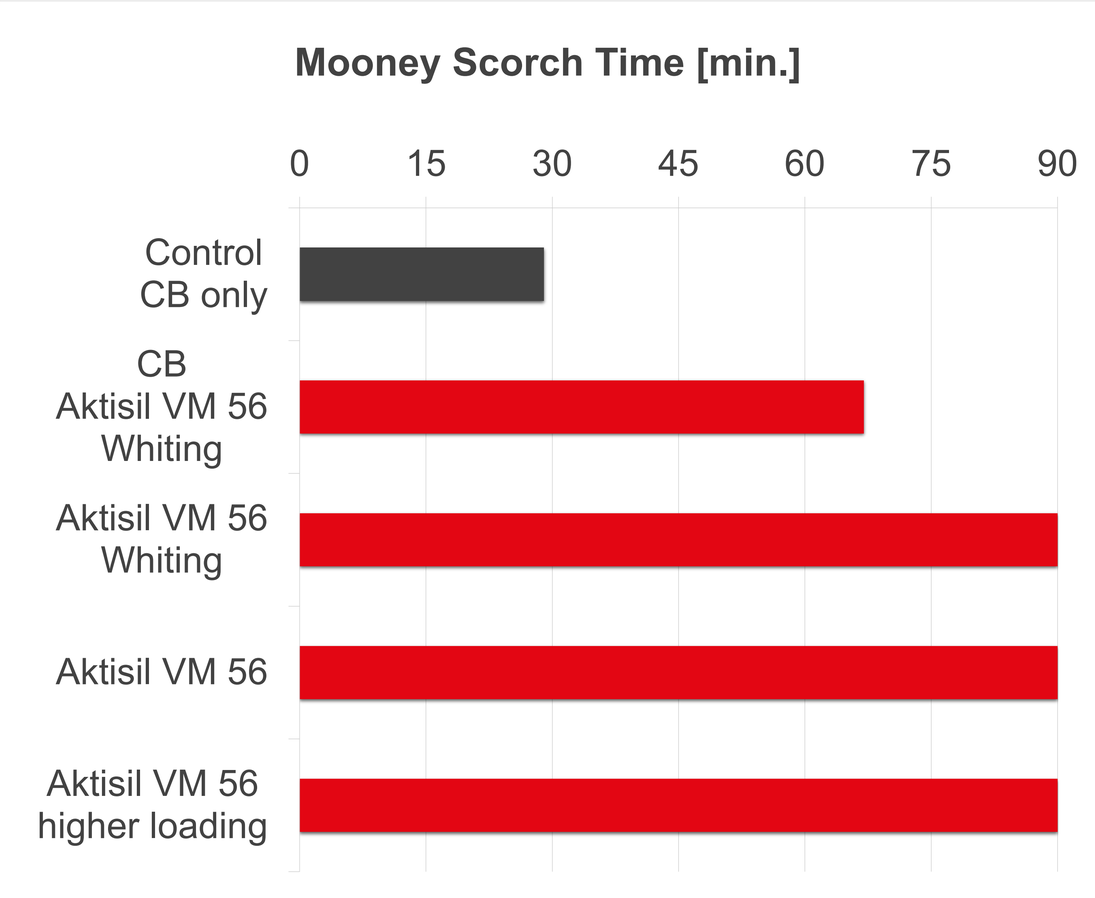
*contains 5 phr CB as a pigment

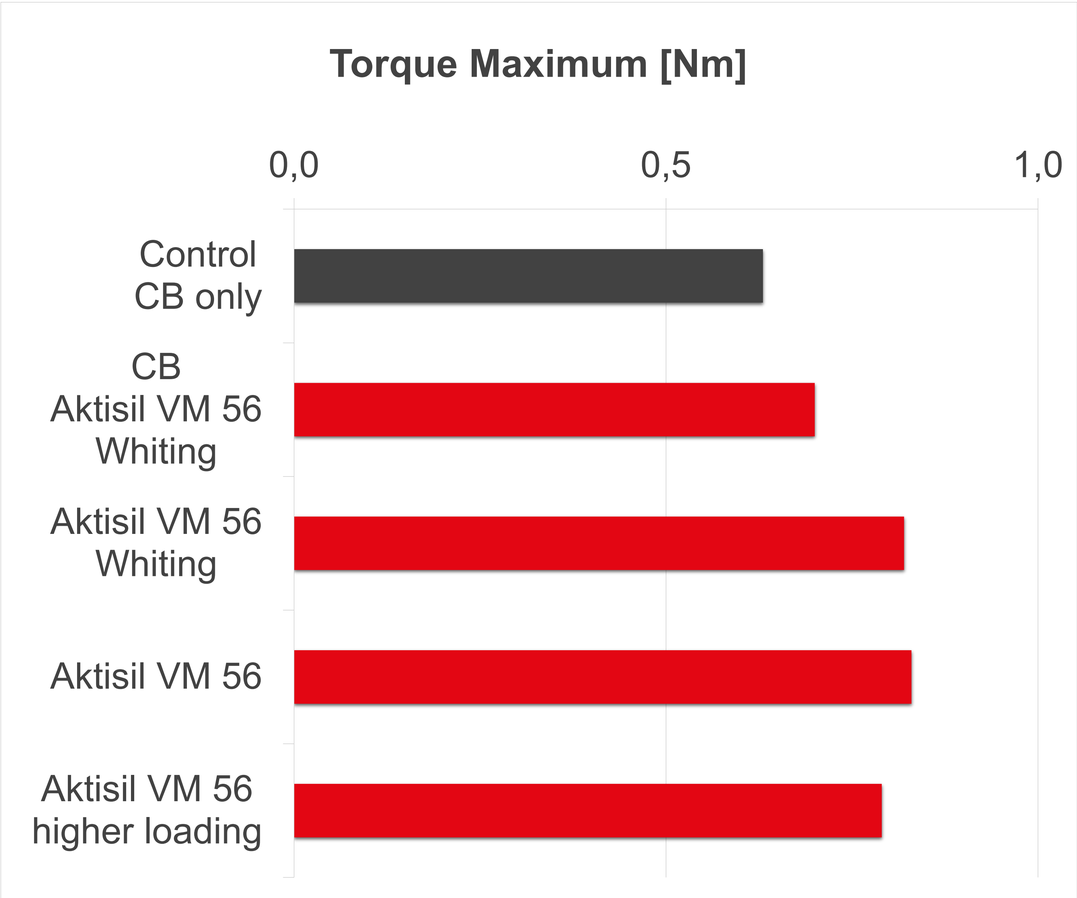
HOFFMANN MINERAL

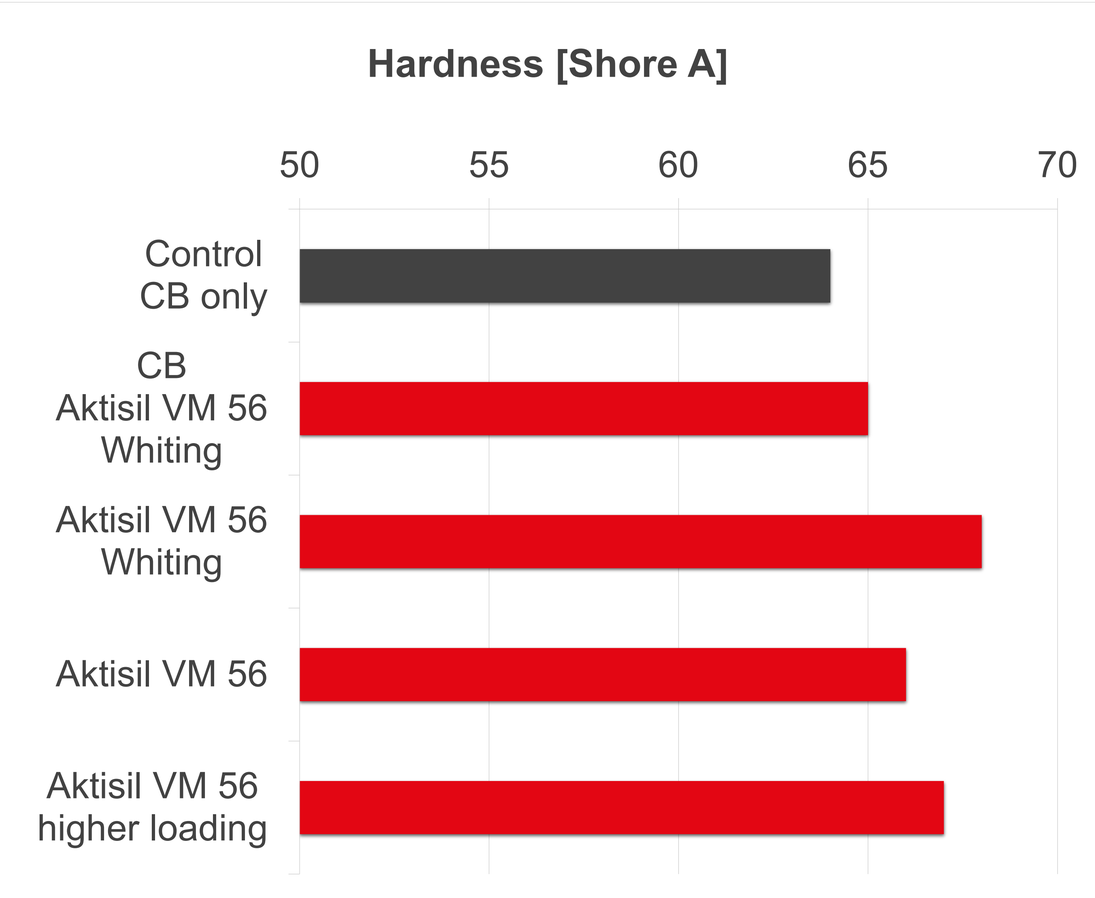
Neuburg Siliceous Earth (Aktisil VM 56) in black building profiles alternatives to carbon black

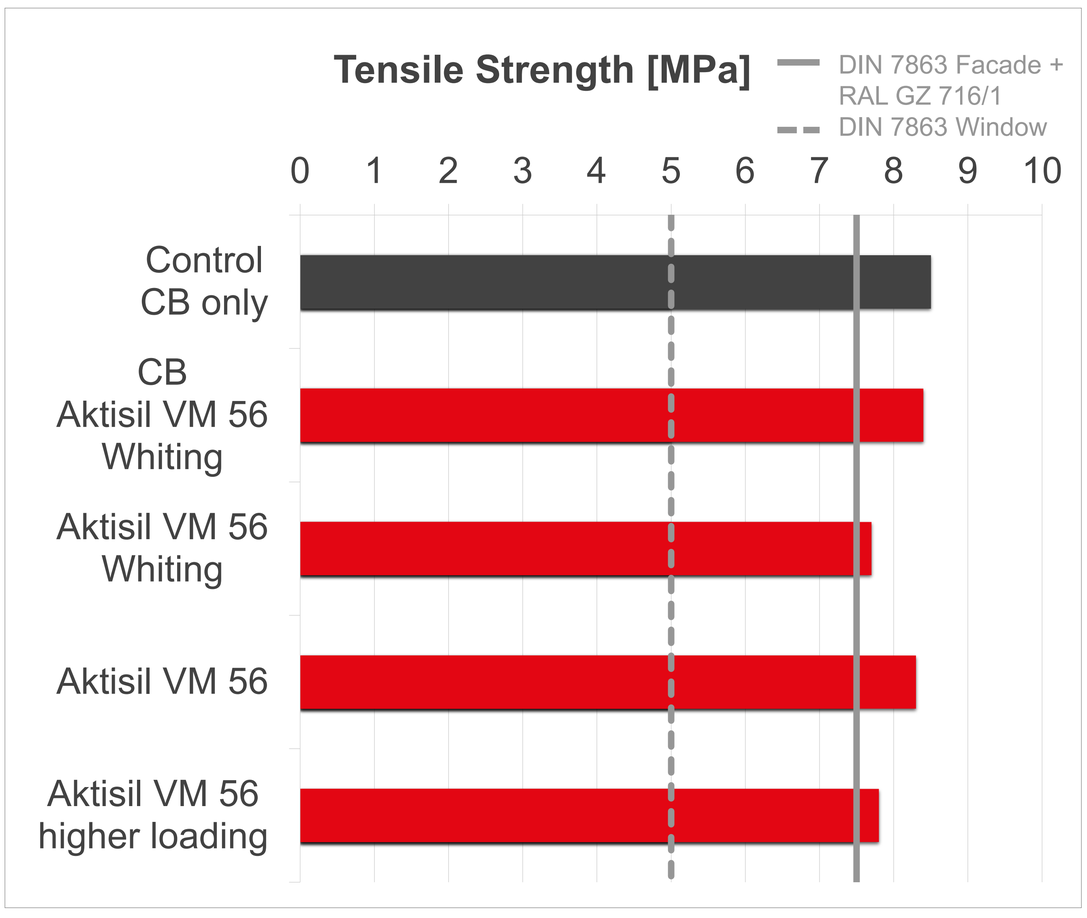
Formulation

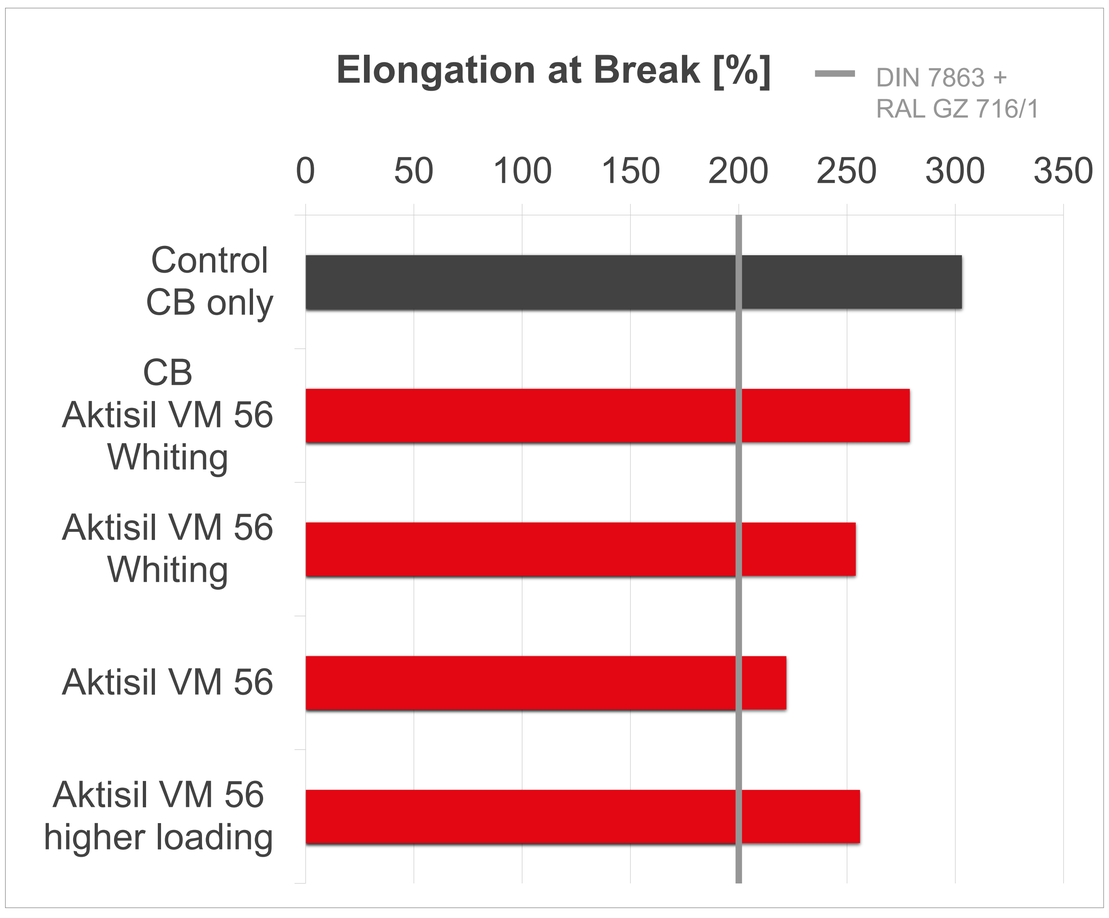








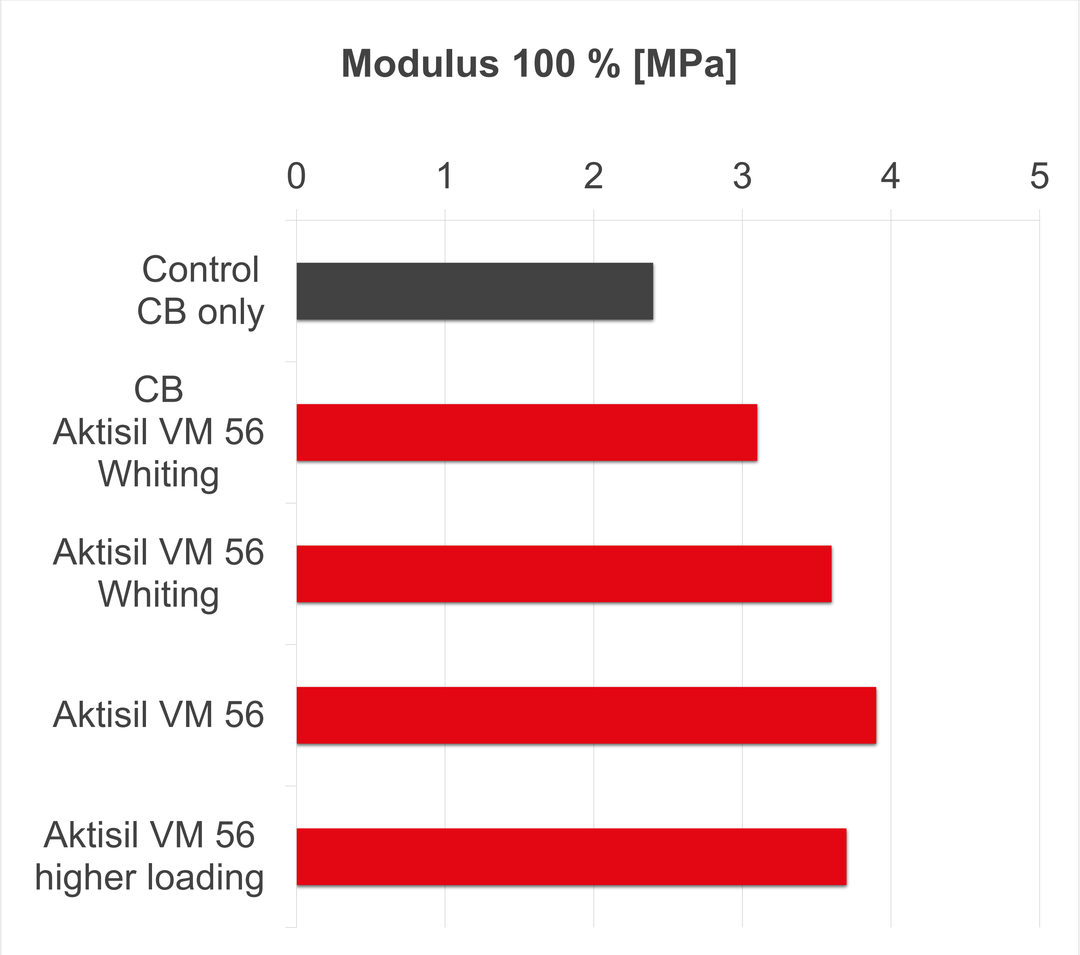


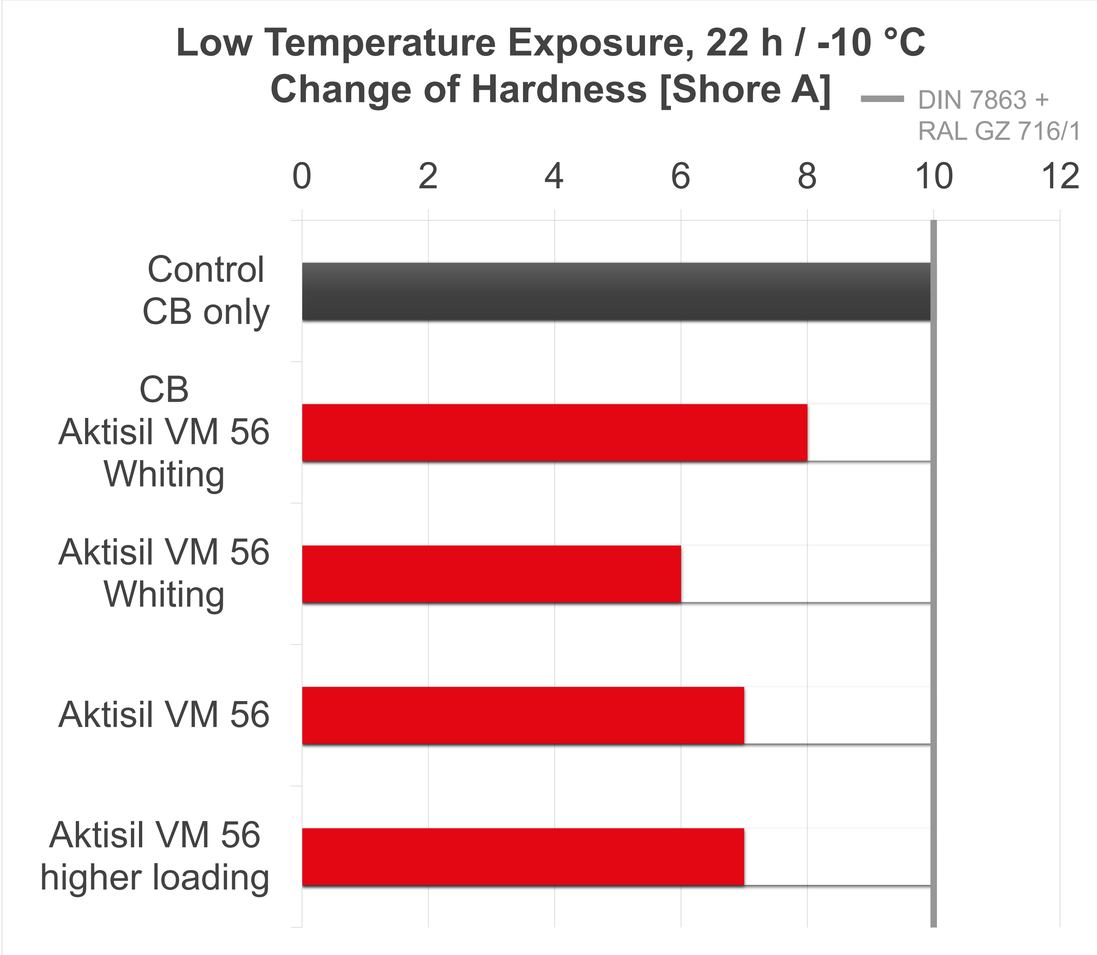


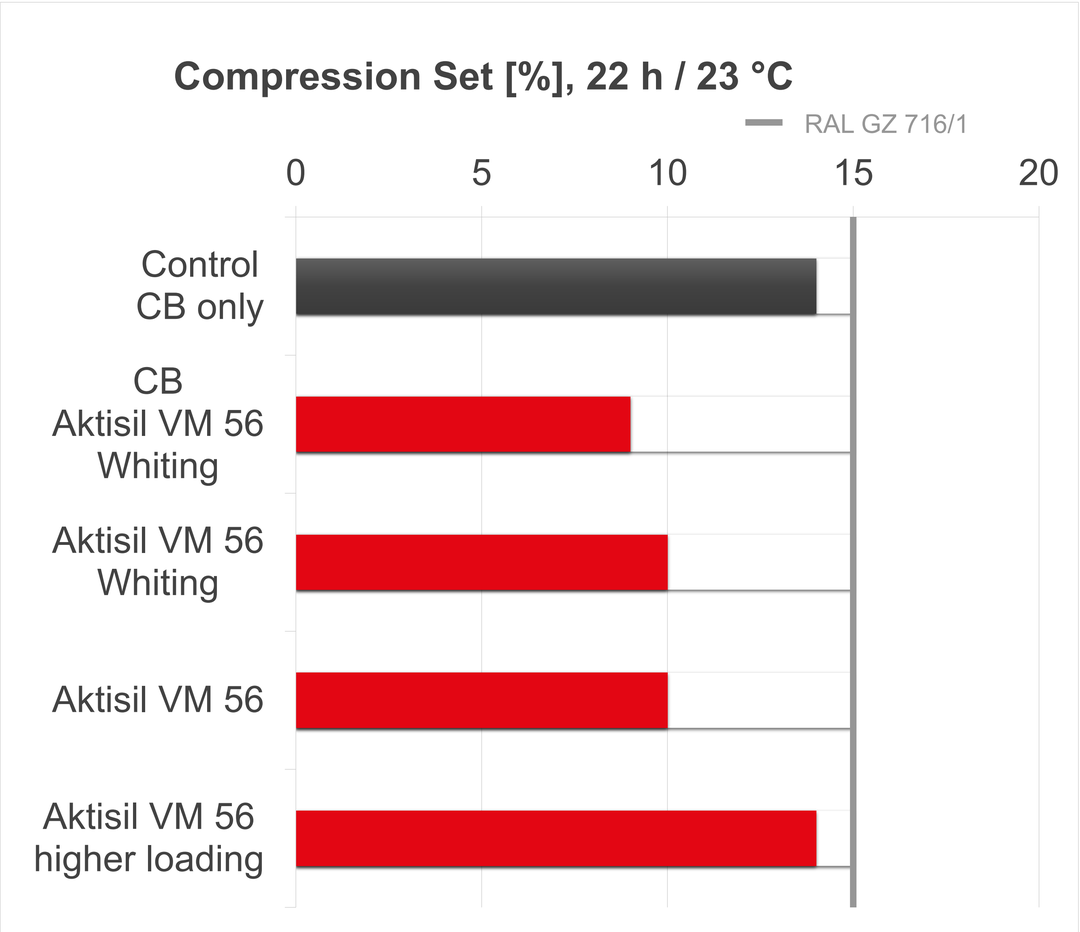
HOFFMANN MINERAL

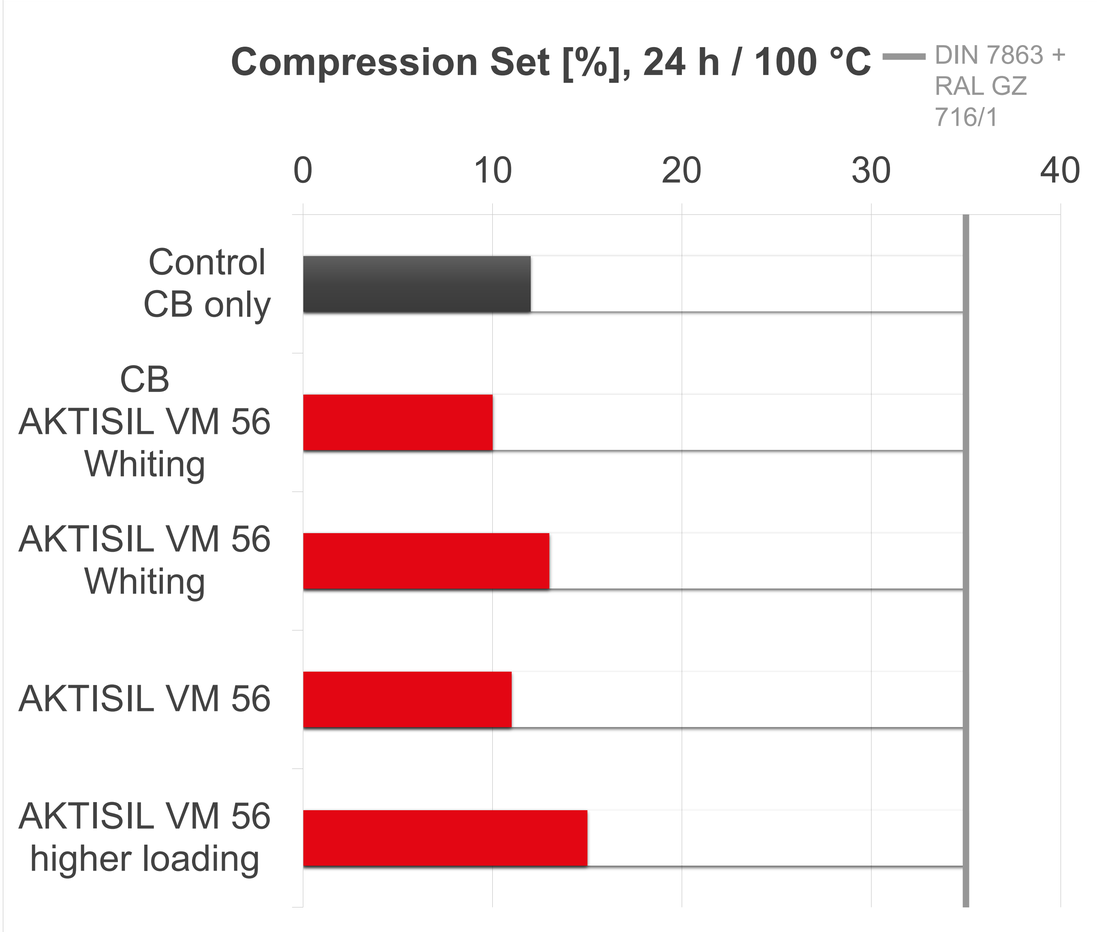
Neuburg Siliceous Earth (Aktisil VM 56) in black building profiles alternatives to carbon black

Results









Aktisil VM 56

- allows to decrease the portion of petroleum based raw materials
  - → safer planning of the raw material costs
  - → usually lower compound costs
- meets the essential requirements of the DIN 7863 and RAL GZ 716/1

Benefits of Aktisil VM 56 according to the formulation

- lower viscosity
- increased scorch safety
- increased tensile moduli
- improved compression set
- lower change of hardness at -10 °C

Outlook

Possible optimization by reducing the peroxide concentration

HOFFMANN MINERAL