NEUBURG SILICEOUS EARTH (AKTISIL Q) IN HIGH CONSISTENCY SILICONE RUBBER

FORMULATION			
(typical for extrusion compounds) in phr	Base cpd.	Quartz-flour, vinyl- silane-treated (QF vt)	Aktisil Q
Elastosil R401/40	100	100	100
Bis-(2,4- dichlorobenzoyl)-	1.5	1.5	1.5



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RESULTS

Improved Collapse Resistance

Quartz-flour, vinylsilane-treated

No Blooming of Curing Agent

After 4 weeks, compound colored dark

Base cpd.

Quartz-flour vt Aktisil Q





Immersion in Reference Oil IRM 903, 72 h / 150 °C





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Aktisil Q compared to Base Silicone Rubber Compounds

 good extrusion properties with very good collapse resistance and reduced surface stickiness Aktisil Q compared to vinylsilanetreated Quartz-flour

- higher hardness:
 75 phr Aktisil Q = 100 phr Quartz-flour
- lower abrasivity / wear on processing machinery

- high tensile moduli
- low compression set without post-cure, up to 75 phr even better than the base compound
- similarly favorable aging resistance
- markedly improved oil resistance
- reduction or total prevention of blooming when working with Bis-(2,4-dichlorobenzoyl)-peroxide as curing agent

- improved collapse resistance of extrusions
- reduced stickiness of uncured extrusions
- markedly improved compression set, esp. press-cured
- slightly better oil resistance
- reduction or total prevention of blooming when working with Bis-(2,4-dichlorobenzoyl)-peroxide as curing agent

Aktisil Q compared to Diatomaceous Earth

- higher loadings possible:
 75 100 phr Aktisil Q =
 50 phr Diatomaceous Earth
- smooth edges of extruded sections
- markedly lower compression set
- markedly higher oil resistance

Benefits of Aktisil Q in typical extrusion compounds

- no blooming of curing agent or reaction products
- no surface stickiness of uncured extrusions
- considerably improved collapse resistance





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