



SPECIAL TOPICS

Silicone rubber compounds with Aktisil Q Curing agent "Bis-(2,4-dichlorobenzoyl) peroxide" 40-75 Shore A, Q, peroxide cure

Guide formulations of HOFFMANN MINERAL	M 608.5	1	8	9	10	11
Elastosil R 401/40		100.0	100.0	100.0	100.0	100.0
AKTISIL Q		---	25.0	50.0	75.0	100.0
Elastosil AUX Curing Agent E		1.5	1.5	1.5	1.5	1.5
Total phr		101.5	126.5	151.5	176.5	201.5
Density	g/cm ³	1.12	1.26	1.38	1.48	1.56

Physical properties

Press cure 5 min @ 115°C

Hardness	DIN ISO 7619-1	Shore A	43	54	61	69	75
Modulus 100 %	DIN 53504, S2	MPa	1.0	1.8	2.9	3.6	4.9
Tensile strength	DIN 53504, S2	MPa	9.9	8.9	8.6	8.2	7.9
Elongation at break	DIN 53504, S2	%	505	440	315	225	180
Rebound	DIN 53512	%	62	61	59	55	52
Tear resistance	DIN ISO 34-1, A	N/mm	9.7	1.8	1.9	1.2	1.1
Compression set 24 h @ 175°C	DIN ISO 815, B	%	41	36	34	34	38

Post cure 4 h @ 200°C

Hardness		Shore A	44	54	61	69	75
Modulus 100 %		MPa	1.0	1.8	2.8	3.8	4.9
Tensile strength		MPa	8.9	8.9	8.1	7.8	7.5
Elongation at break		%	500	435	300	220	170
Rebound		%	38	34	32	33	27
Tear resistance		N/mm	8.4	1.8	1.7	1.4	1.3
Compression set 24 h @ 175°C		%	38	38	37	35	38

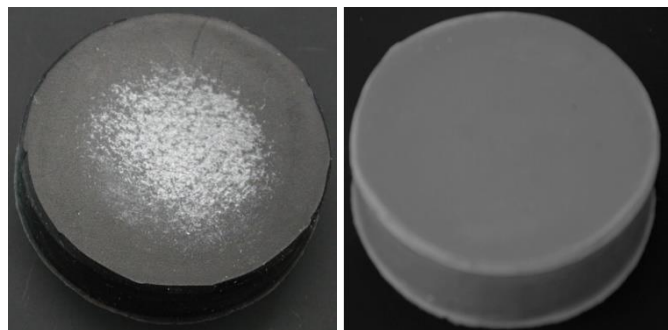


	M 608.5	1	8	9	10	11
Immersion in reference oil IRM 903, 72 h @ 150°C, post cured specimen						
Δ Hardness	Shore A	-22	-21	-21	-23	-23
Δ Modulus 100 %	%	-3	+2	+1	+5	+14
Δ Tensile strength	%	-57	-26	-19	-6	-4
Δ Elongation at break	%, rel.	-49	-30	-30	-13	-20
Δ Weight	%	+47	+34	+28	+22	+18
Δ Volume	%	+58	+47	+41	+35	+31

Without post-cure, AKTISIL Q attains a marginally higher increase of volume and weight of about 1 to 2 %.

Blooming

Already 25 phr AKTISIL Q can reduce the blooming tendency, a higher dosage (e.g. 50 phr) prevents blooming completely.



without filler
post cured 4 h @ 200°C

AKTISIL Q
not post cured

More information on this topic:

[Neuburg Siliceous Earth in High Consistency Silicone Rubber](#)

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