OTHER APPLICATION
Molding, light-colored

FKM: low viscosity, high curative level
80 Shore A, FKM, bisphenol cure

Guide formulations of HOFFMANN MINERAL M 629	SILLITIN V 85 3/2	AKTISIL Q 3/6	AKTISIL AM 1/2
Viton A-201C	100	100	100
Elastomag 170	3	3	3
Vulcofac F45	6	6	6
SILLITIN V 85	45	---	---
AKTISIL Q	---	45	---
AKTISIL AM	---	---	45
Total phr	154	154	154

Advantages of all types of Neuburg Siliceous Earth:
- colored parts are possible
- reduction of product carbon footprint

Advantages of the individual types:

SILLITIN V 85:
- highest elongation at break
- good heat resistance
- medium media resistances

AKTISIL Q:
- highest tensile strength
- good modulus
- good heat resistance
- medium media resistance

AKTISIL AM:
- highest tensile strength
- highest modulus
- best abrasion resistance
- best heat resistance
- medium resistance to water and fuel

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			SILLITIN V 85	AKTISIL Q	AKTISIL AM
		M 629	3/2	3/6	1/2
Mooney Viscosity					
ML (Min) 100°C	DIN 53523, T3	MU	104	96	99
Rotorless curemeter, 177°C					
Mmin	DIN 53529, T3	Nm	0.01	0.04	0.06
Curing rate	DIN 53529, T3	Nm/min	0.6	1.4	0.8
t_{90}	DIN 53529, T3	Min	5.0	3.1	3.7
Mechanical properties					
Press cure 10 min @ 177°C + post cure 24 h @ 232°C					
Density	DIN EN ISO 1183-1	g/cm³	2.01	2.01	2.01
Hardness	DIN ISO 48-4	Shore A	76	79	81
Tensile strength	DIN 53504, S2	MPa	11	15	15
Modulus 50 %	DIN 53504, S2	MPa	3.40	4.47	4.80
Modulus 100 %	DIN 53504, S2	MPa	6.6	9.4	11
Elongation at break	DIN 53504, S2	%	220	165	133
Tear resistance	DIN ISO 34-1, A	N/mm	4.6	3.5	2.8
Compression set 70 h @ 232°C, 25 % deflection	DIN ISO 815-1, B	%	32	34	35
Abrasion	DIN ISO 4649	mm³	170	180	140
Air aging, 70 h @ 232°C, post cured specimen					
Hardness		Shore A	78	79	81
Tensile strength		MPa	13	14	15
Elongation at break		%	210	162	139
Δ Hardness		Shore A	+2	0	0
Δ Tensile strength		%	+12	-7	+0.5
Δ Elongation at break		%, rel.	-4.5	-2.3	+4.9
Immersion in distilled water, 168 h @ 60°C, post cure specimen					
Hardness		Shore A	76	79	79
Tensile strength		MPa	8.7	12	14
Elongation at break		%	288	185	176
Δ Hardness		Shore A	0	0	-2
Δ Tensile strength		%	-23	-19	-6.4
Δ Elongation at break		%, rel.	+31	+12	+33
Δ Weight		%	+0.9	+0.7	+0.9
Δ Volume		%	+0.9	+0.5	+1.1

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		SILLITIN V 85	AKTISIL Q	AKTISIL AM
	M 629	3/2	3/6	1/2
Immersion in FAM B, 70 h @ 23°C, post cured specimen				
Hardness	Shore A	63	68	67
Tensile strength	MPa	6.3	7.6	8.5
Elongation at break	%	173	105	103
Δ Hardness	Shore A	-13	-11	-14
Δ Tensile strength	%	-44	-50	-44
Δ Elongation at break	%, rel.	-21	-37	-23
Δ Weight	%	+7.2	+7.7	+7.9
Δ Volume	%	+18	+19	+19
Immersion in oil, OS 206 304, 168 h @ 165°C, post cured specimen				
Hardness	Shore A	76	80	80
Tensile strength	MPa	11	13	9
Elongation at break	%	152	117	68
Δ Hardness	Shore A	0	+1	-1
Δ Tensile strength	%	0.2	-16	-41
Δ Elongation at break	%, rel.	-31	-29	-49
Δ Weight	%	+0.6	+0.7	+0.7
Δ Volume	%	+0.6	+0.6	+0.9

More information on this topic:

Neuburg Siliceous Earth in bisphenolic cured FKM

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