



ELECTRICAL APPLICATION

Capacitor gasket

Medium mineral filler / carbon black loading

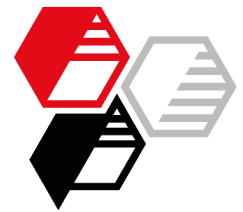
70/75 Shore A, IIR, resin cure

		SILFIT Z 91	AKTISIL VM 56	AKTIFIT VM
Guide formulations of HOFFMANN MINERAL	M 620.1	3	4	8
Butyl 268		100	100	100
Ruß N-990		100	100	100
SILFIT Z 91		100	---	---
AKTISIL VM 56		---	100	---
AKTIFIT VM		---	---	100
Zinkoxyd aktiv		5	5	5
Stearic acid		2	2	2
Dispergator FL		2	2	2
Tackirol 201		18	18	18
Total phr		327	327	327
Density	g/cm ³	1.45	1.45	1.45

- SILFIT Z 91: Counter product to non-surface-treated calcined kaolin with improved processing properties and lower compression set
- AKTISIL VM 56: Counter product to surface-treated (vinyl silane) calcined kaolin with improved processing properties
- AKTIFIT VM: Counter product to surface-treated (vinyl silane) calcined kaolin with improved processing properties and lower compression set



			M 620.1	SILFIT Z 91 3	AKTISIL VM 56 4	AKTIFIT VM 8
Mooney Viscosity						
ML (1+4) 120°C	DIN 53523, T3	MU		61	67	63
Mooney Scorch						
ML (5 MU) 120°C	DIN 53523, T4	min		16	26	20
Rotorless curemeter, 200°C						
Mmin	DIN 53529, T3	Nm		0.10	0.11	0.09
Mmax	DIN 53529, T3	Nm		0.48	0.49	0.43
t ₅	DIN 53529, T3	min		0.62	0.64	0.55
t ₉₀	DIN 53529, T3	min		9	8	16
Physical properties						
Press cure 6 min @ 200°C + Post cure 2 h @ 190°C						
Hardness (piled S2)	DIN ISO 7619-1	Shore A		70	70	72
Modulus 50 %	DIN 53504, S2	MPa		2.0	2.2	2.5
Modulus 100 %	DIN 53504, S2	MPa		2.9	3.6	4.2
Tensile strength	DIN 53504, S2	MPa		5.2	5.7	5.8
Elongation at break	DIN 53504, S2	%		351	338	272
Tear resistance	DIN ISO 34-1, A	N/mm		6.3	7.6	7.1
Volume resistivity 100 V, 1 min	DIN IEC 93	Ω cm		5.7 x 10 ¹³	6.4 x 10 ¹⁴	1.1 x 10 ¹⁴
Compression set, DIN ISO 815-1, B, cooling method A						
72 h @ 105°C, 25 % deflection		%		12	10	9
72 h @ 125°C, 25 % deflection		%		18	16	15
72 h @ 135°C, 25 % deflection		%		28	23	19



	M 620.1	SILFIT Z 91 3	AKTISIL VM 56 4	AKTIFIT VM 8
Air aging, 72 h @ 105°C, DIN 53508				
Hardness (piled S2)	Shore A	70	73	72
Modulus 50 %	MPa	2.0	2.3	2.6
Modulus 100 %	MPa	2.9	3.7	4.4
Tensile strength	MPa	4.8	5.4	5.9
Elongation at break	%	316	278	227
Δ Hardness	Shore A	0	+3	0
Δ Modulus 50 %	%	+4	+7	+3
Δ Modulus 100 %	%	0	+3	+5
Δ Tensile strength	%	-6	-6	+1
Δ Elongation at break	%, rel.	-10	-18	-16
Air aging, 72 h @ 125°C, DIN 53508				
Hardness (piled S2)	Shore A	70	72	72
Modulus 50 %	MPa	2.0	2.5	2.6
Modulus 100 %	MPa	3.0	3.9	4.4
Tensile strength	MPa	4.7	5.5	5.9
Elongation at break	%	304	269	226
Δ Hardness	Shore A	0	+2	0
Δ Modulus 50 %	%	+5	+13	+4
Δ Modulus 100 %	%	+1	+7	+6
Δ Tensile strength	%	-9	-4	+2
Δ Elongation at break	%, rel.	-13	-20	-17
Air aging, 72 h @ 135°C, DIN 53508				
Hardness (piled S2)	Shore A	71	73	74
Modulus 50 %	MPa	2.1	2.5	2.6
Modulus 100 %	MPa	3.1	3.9	4.4
Tensile strength	MPa	4.5	5.4	5.8
Elongation at break	%	271	251	202
Δ Hardness	Shore A	+1	+3	+2
Δ Modulus 50 %	%	+6	+12	+4
Δ Modulus 100 %	%	+5	+8	+4
Δ Tensile strength	%	-12	-6	-1
Δ Elongation at break	%, rel.	-23	-26	-26

Our applications engineering advice and the information contained in this formulation are based on experience and are made to the best of our knowledge and belief, they must be regarded however as non-binding advice without guarantee. Working and employment conditions over which we have no control exclude any damage claim arising from the use of our data and recommendations. Furthermore we cannot assume any responsibility for patent infringements, which might result from the use of our information.