

**AUTOMOTIVE INDUSTRY****Profile, solid, black****Car body seals, conventional and electrically non-conductive****65 Shore A, EPDM, sulfur cure**

Guide formulations of HOFFMANN MINERAL	M 612.1	conventional		non-conductive	
		7	3	14	10
Keltan 8340A )*		100.00	100.00	100.00	100.00
Stearic acid		1.00	1.00	1.00	1.00
Zinkoxyd aktiv		5.00	5.00	5.00	5.00
PEG 3000		2.00	2.00	2.00	2.00
Calcium oxide		5.50	5.50	5.50	5.50
Corax N 550/30		110.00	110.00	60.00	60.00
SILLITIN Z 86		50.00	---	155.00	---
SILFIT Z 91		---	50.00	---	155.00
Process Oil P 460 (ex Sunpar 2280)		65.00	65.00	65.00	65.00
Rhenogran DPG-80		0.50	0.50	0.50	0.50
Rhenogran MBTS-80		1.30	1.30	1.30	1.30
Rhenogran ZBEC-70		2.00	2.00	2.00	2.00
Rhenogran S-80		0.75	0.75	0.75	0.75
Rhenogran CLD-80		1.00	1.00	1.00	1.00
Rhenogran TP-50		2.00	2.00	2.00	2.00
Vulkalent E/C		0.50	0.50	0.50	0.50
Rhenogran CBS-80		0.50	0.50	0.50	0.50
Total phr		347.05	347.05	402.05	402.05
Density	g/cm <sup>3</sup>	1.23	1.23	1.37	1.37

)\* No longer available. Recommended: Keltan 8550

The basic properties of the compounds with SILFIT Z 91 and are SILLITIN Z 86 comparable (lower compression set with SILIFIT Z 91).

SILFIT Z 91 positively affects the conversion time  $t_{90}$ , which means faster cure.

Moreover, SILFIT Z 91 helps to avoid filler induced deposits during the extrusion process.

			conventional		non-conductive		
			M 612.1	7	3	14	10
<b>Mooney Viscosity</b>							
ML (1+4) 120°C	DIN 53523, T3	MU	58	58	51	52	
<b>Mooney Scorch</b>							
ML (5 MU) 120°C	DIN 53523, T4	min	15	15	23	18	
<b>Rotorless curemeter, 180°C</b>							
Mmin	DIN 53529, T3	Nm	0.119	0.111	0.101	0.091	
Mmax	DIN 53529, T3	Nm	0.725	0.688	0.679	0.626	
t <sub>5</sub>	DIN 53529, T3	min	0.58	0.58	0.97	0.81	
t <sub>90</sub>	DIN 53529, T3	min	3.50	2.89	4.65	2.91	
<b>Physical properties</b>							
<b>Press cure 6 min @ 180°C</b>							
Hardness (piled S2)	DIN ISO 7619-1	Shore A	66	65	62	61	
Modulus 50 %	DIN 53504, S2	MPa	1.6	1.6	1.3	1.4	
Modulus 100 %	DIN 53504, S2	MPa	3.0	3.1	2.1	2.4	
Modulus 200 %	DIN 53504, S2	MPa	5.9	6.2	3.2	3.5	
Modulus 300 %	DIN 53504, S2	MPa	8.4	8.8	4.2	4.4	
Modulus 500 %	DIN 53504, S2	MPa	---	---	7.0	7.2	
Tensile strength	DIN 53504, S2	MPa	12.2	12.1	9.0	8.9	
Elongation at break	DIN 53504, S2	%	485	475	595	615	
Tear resistance	DIN ISO 34-1, A	N/mm	9.1	9.0	9.3	9.6	
<b>Press cure 8 min @ 180°C</b>							
Compression set	DIN ISO 815, B						
24 h @ 70°C, 25 % deflection		%	12	10	14	11	
24 h @ 100°C, 25 % deflection		%	28	25	35	29	
<b>Press cure 6 min @ 180°C</b>							
Compression set	VW PV 3307, 5s						
100 h @ 70°C, 50 % deflection		%	39	35	42	33	
<b>Extrusion Garvey profile – maximum haul-off speed for rating 4444</b>							
Haul-off speed	ASTM D 2230	m/min	7.5	8.1	4.0	6.6	

**More information on this topic is available in this technical report:**

[Silfit Z 91 in Conventional and Non-Conductive Car Body Seals](#)

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