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AUTOMOTIVE INDUSTRY**Radiator hose****Low filler level****65 Shore A, EPDM, peroxide cure****Start formulation for VW TL 523.61**

Guide formulation of DSM (now Arlanxeo)	S 7689 S
Keltan 8340A)*	70
Keltan 708x15Z)**	35
Magnesium oxide 80 %	4
Corax N 550	30
Durex 0	40
SILLITIN N 85	25
PEG 3400	4
TMQ	1
NDBC	1
Process Oil P 460 (ex Sunpar 2280)	40
Perkadox 14-40 MB	3
Trigonox 101	5
TMPT	2
Total phr	260

)* No longer available. Recommended: Keltan 8550C

)** No longer available. Recommended: Keltan 6471

Mooney Viscosity

ML (1+4) 100°C ISO 289 (1985) MU 75

Rheometer, 180°C

t ₂	ISO 3417 (1977) min	0.9
t ₉₀	ISO 3417 (1977) min	8.3
ML	ISO 3417 (1977) Nm	1.6
MH	ISO 3417 (1977) Nm	10.7

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Physical properties**Cure 12 min @ 180°C**

Hardness		Shore A	65
Modulus 100 %	ISO 37	MPa	3.2
Modulus 300 %	ISO 37	MPa	9.1
Tensile strength	ISO 37	MPa	11.2
Elongation at break	ISO 37	%	375

Compression set

Volkswagen Standard P-VW 3307

22 h @ 160°C, cooled under deflection

measured after 5 s relaxation % 40

Air aging, 94 h @ 160°C

Hardness		Shore A	67
Modulus 100 %		MPa	4.0
Modulus 300 %		MPa	10.8
Tensile strength		MPa	11.5
Elongation at break		%	335

Immersion in ASTM Oil 2, 24 h @ 100°C

Hardness		Shore A	55
Modulus 100 %		MPa	5.0
Tensile strength		MPa	9.5
Elongation at break		%	250
Δ Weight		%	+70

Note:

Low filler level, excellent mechanical properties.

Processability in extrusion and molding on mandrel at decreased filler level is compensated by proper selection of EPDM grades.