



CONSTRUCTION INDUSTRY

Profile, solid, black

Building profile

50 Shore A, EPDM, sulfur cure / steam cure

Specification DIN 7863

Guide formulation of DSM (now Arlanxeo)		V 5841 B
Keltan 512x50)*	150.0
Zinc oxide		5.0
Stearic acid		2.0
FEF N-550		90.0
SILLITIN N 82)**	40.0
Process Oil P 460 (ex Sunpar 2280)		55.0
Vaseline		5.0
TMTD		2.0
ZDMC		3.0
ZDBC		3.0
DTDM		1.5
Sulfur		0.5
Total phr		357.0
Density	g/cm ³	1.12

)* No longer available. Recommended: Keltan 4450 + 50 phr paraffin oil

)** No longer available. Recommended: SILLITIN N 75

Compound preparation

3-D Branbury mixer, volume 47.5 l

Overload	%	20
Batchsize	kg	64.5
Rotor speed	rpm	35
Mixing method:		
Polymer, zinc oxide, stearic acid, carbon black	min	0-2
Rest except accelerators and sulfur	min	2.5-5.5
Discharge	min	5.5
Indicated discharge temperature	°C	114

Fed to slab-off mill: accelerators and sulfur



V 5841 B

Mooney Viscosity

ML (1+4) 100°C	MU	31
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Rheometer, 160°C

Delta S	Nm	2.98
Optimum time	min	9.0
Scorch time	min	3.3

Berstorff Extruder Ø 90 mm 16D

Extrusion conditions		no vacuum
Barrel	°C	40-60-80
Head	°C	110
Dimensions of profile	mm	5 x 22

Physical properties

Steam cure @ 160°C

		25 min	40 min
Hardness	Shore A	51	51
Tensile strength	MPa	9.8	9.4
Elongation at break	%	580	540

Compression set

22 h @ -25°C	%	47	42
22 h @ 100°C	%	33	32

Air aging, 7 d @ -10°C

Δ Hardness	Shore A	+7	+8
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Air aging, 7 d @ 100°C

Δ Hardness	Shore A	+5	+5
Δ Tensile strength	%	0	+2
Δ Elongation at break	%, rel.	-24	-32
Δ Weight	%	-0.8	-0.7

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