



CONSTRUCTION INDUSTRY

Profile, solid, black

Building profile

70 Shore A, EPDM, sulfur cure / steam cure

Specification DIN 7863

Guide formulation of DSM (now Arlanxeo)		V 5843 B
Keltan 512)*	100.0
Zinc oxide		5.0
Stearic acid		4.0
FEF N-550		80.0
SILLITIN N 82)**	35.0
Process Oil P 460 (ex Sunpar 2280)		40.0
Vaseline		5.0
TMTD		1.0
ZDMC		1.5
ZDBC		1.5
DTDM		1.5
Sulfur		0.5
Total phr		275.0
Density	g/cm ³	1.17

)* No longer available. Recommended: Keltan 4450

)* No longer available. Recommended: SILLITIN N 75

Compound preparation

3-D Branbury mixer, volume 47.5 l

Overload	%	5
Batchsize	kg	62.1
Rotor speed	rpm	35
Mixing method:		
Polymer, zinc oxide, stearic acid	min	0-1
Rest except accelerators and sulfur	min	1-4.5
Discharge	min	4.5
Indicated discharge temperature	°C	124

Fed to slab-off mill: accelerators and sulfur



V 5843 B

Mooney Viscosity

ML (1+4) 100°C	MU	42
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Rheometer, 160°C

Delta S	Nm	4.74
Optimum time	min	10.1
Scorch time	min	3.0

Berstorff Extruder Ø 90 mm 16D

Extrusion conditions		no vacuum
Barrel	°C	90-80-80
Head	°C	70
Dimensions of profile	mm	5 x 22

Physical properties

Steam cure @ 160°C

		25 min	40 min
Hardness	Shore A	68	68
Tensile strength	MPa	10.2	10.2
Elongation at break	%	380	400

Compression set

22 h @ -25°C	%	53	57
22 h @ 100°C	%	35	32

Air aging, 7 d @ -10°C

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

Δ Hardness	Shore A	+4	+5
Δ Tensile strength	%	0	-4
Δ Elongation at break	%, rel.	-23	-25
Δ Weight	%	-0.8	-0.7

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