



## OTHER APPLICATION

### Extrusion, Profile, sponge, black

Density 0.65 g/cm<sup>3</sup>, EPDM, sulfur cure / UHF cure

Guide formulation of DSM (now Arlanxeo)	V 3001
Keltan 512 )*	100.0
Zinc oxide	5.0
Stearic acid	3.0
Durex 0	70.0
SILLITIN Z 86	55.0
Vaseline	10.0
Process Oil P 460 (ex Sunpar 2280)	50.0
Caloxol W3	4.0
MBT	1.0
TDEC	0.8
ZDMC	2.0
DBTU	0.6
Sulfur	2.0
Genitron CR	4.0
Total phr	307.4

)\* No longer available. Recommended: Keltan 4450

### Compound preparation

#### 3-D Branbury mixer, volume 47.5 l

Overload	%	10
Rotor speed	rpm	35
Mixing method:		
Polymer	min	0
Rest except Caloxol, accelerators, sulfur and blowing agent	min	1
Caloxol W3	min	4
Discharge	min	5
Indicated discharge temperature	°C	120-125

Fed to slab-off mill: accelerators, sulfur and blowing agent



V 3001

**Mooney Viscosity**

ML (1+4) 100°C	MU	42
after storing 4 h @ 50°C	MU	42
after storing 24 h @ 50°C	MU	44
after storing 96 h @ 50°C	MU	116

**Rheometer, 160°C**

Delta S	Nm	9.32
Optimum time	min	20.2
Scorch time	min	2.0

**Berstorff Extruder Ø 90 mm 16D**

Extrusion conditions		with vacuum
Barrel	°C	30-30-40
Head	°C	40

**UHF curing, Hertz-four GLH FAT 2x2.5 kW**

Energy Magnetron I	A	0.4
Energy Magnetron II	A	0.4
Temperature in air tunnel (6m)	°C	240

**Profile type**

Extrusion rate	m/min	8	8
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**Physical properties**

		original	post cured 3 h @ 130°C	original	post cured 3 h @ 130°C
Density	g/cm <sup>3</sup>	---	0.64	0.45	---
Water absorption	%	---	< 1	< 1	---

**Compression set**

100 h @ RT, after 5 min	%	14	---	21	---
100 h @ RT, after 60 min	%	11	---	7	---
100 h @ 70°C, after 5 min	%	58	46	75	26
100 h @ 70°C, after 60 min	%	58	44	62	22

**Compression deflection**

ASTM 1056	kg/100mm	3.21	---	---	---
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