

Product Data Sheet

SUPRENE[®] 600WF

SUPRENE[®] 600WF

SUPRENE EPDM 600WF is an oil-extended 'friable bale' ENB type grade which contains 100phr of non-staining white paraffinic oil.

SUPRENE EPDM 600WF is possible to load it with high concentration of fillers etc. When blended with a non-oil extended SUPRENE EPDM grade, the SUPRENE EPDM 600WF improves the properties and processability (at mixing and extruding) of the non-oil extended grade.

It can be formulated to make products of lower hardness.

Its blend with diene-type rubber gives excellent physical properties.

SUPRENE EPDM 600WF is mainly used in automotive parts such as window seal, hose, and various industrial parts.

Raw Polymer Properties

	Test Method	Unit	Min.	Max.	Typical Value
Mooney Viscosity, (ML 1+4, 100°C unmilled)	ASTM D1646	-	56	66	61
Ethylene Content	ASTM D3900	wt%	69	75	72
ENB Content	ASTM D6047	wt%	3.0	5.0	4.0
Oil Content	-	phr	97	103	100
Specific Gravity	ASTM D792	-	-	-	0.87
Volatile Matter	ASTM D1416	wt%	-	0.8	0.3
Ash	ASTM D1416	wt%	-	0.10	-
Physical Form, (kg/bale)	-	-	-	-	25kg (Friable Bale)

* Ethylene Content + Propylene Content = 100%

The information above is believed to be accurate and represents the best information currently available to us. Your attention is directed to the pertinent Material Safety Data Sheets for the products mentioned herein. All sales are subject to SK Global Chemical's standard terms and conditions of sale, copies of which are available upon request and which are part of SK Global Chemical's invoices and/or order acknowledgments. Except as expressly provided in SK Global Chemical's standard terms and conditions of sale, SK Global Chemical and its affiliates make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and SK Global Chemical and its affiliates assume no liability from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

SUPRENE[®] 600WF

Typical Properties

Properties	Test Method	S600WF
Mooney Viscosity ML 1+4 @ 100°C	ASTM D1646	61.0
Ethylene Content, wt%	ASTM D3900	72.0
ENB Content, wt%	ASTM D6047	4.0

Guide Formulation

Formulation 1 & 2

	Formulation 1	Formulation 2
S600WF	200.0	200.0
FEF	220.0	100.0
Talc	90.0	-
PEG-4000	2.0	-
CaO	3.0	-
P-6	80.0	25.0
ZnO	5.0	5.0
Stearic Acid	1.0	1.0
MBT(M)	1.0	-
MBTS(DM)	-	0.5
TMTD(TT)	0.5	1.5
DPTT(TRA)	0.5	-
CBS(CZ)	2.0	-
Sulfur	1.5	1.5
Total	606.5	334.5

* Unit: phr

The information above is believed to be accurate and represents the best information currently available to us. Your attention is directed to the pertinent Material Safety Data Sheets for the products mentioned herein. All sales are subject to SK Global Chemical's standard terms and conditions of sale, copies of which are available upon request and which are part of SK Global Chemical's invoices and/or order acknowledgments. Except as expressly provided in SK Global Chemical's standard terms and conditions of sale, SK Global Chemical and its affiliates make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and SK Global Chemical and its affiliates assume no liability from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Properties	Test Method	Formulation 1	Formulation 2
Compound Mooney Viscosity ML 1+4 @ 100°C	ASTM D1646	70.3	65.0
Pre-vulcanization characteristics Large Rotor at 125°C	ASTM D1646		
Minimum Viscosity (Vm)		44.9	43.3
t'5 (min)		9.35	26.65
t'35 (min)		13.45	38.68
Δt30		4.10	12.03
Rotorless Cure Meter (MDR, 160°C/30min)	ASTM D5289		
M _L (lb·in)		2.27	2.4
M _H (lb·in)		10.78	12.1
t _S 2 (min)		2.22	5.05
t _C 50 (min)		2.82	7.18
t _C 90 (min)		12.56	14.41

Cured at 160°C for 20 min

Properties	Test Method	Formulation 1	Formulation 2
Specific Gravity	ASTM D792	1.26	1.05
Hardness (shore A)	ASTM D2240	73	53
Tensile Strength (kgf/cm ²)	ASTM D412	98	171
Elongation (%)	ASTM D412	328	535
100% Modulus (kgf/cm ²)	ASTM D412	41.9	19.0
Tear Strength (kgf/cm)	ASTM D624		

Heat Resistance

Properties	Test Method	Formulation 1	Formulation 2
Hardness (Change Point)	ASTM D2240	+4	-
Tensile Strength (Change %)	ASTM D412	+5	-
Elongation (Change %)	ASTM D412	-30	-

* After 168 hours oven aging at 100°C per ASTM D573

The information above is believed to be accurate and represents the best information currently available to us. Your attention is directed to the pertinent Material Safety Data Sheets for the products mentioned herein. All sales are subject to SK Global Chemical's standard terms and conditions of sale, copies of which are available upon request and which are part of SK Global Chemical's invoices and/or order acknowledgments. Except as expressly provided in SK Global Chemical's standard terms and conditions of sale, SK Global Chemical and its affiliates make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and SK Global Chemical and its affiliates assume no liability from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Formulation 3 & 4

	Formulation 3	Formulation 4
S600WF	200.0	200.0
FEF	185.0	159.0
CaCO ₃	100.0	87.0
P-4W	55.0	35.0
MB	8.0	8.0
RD	2.0	2.0
ZnO	5.0	5.0
Stearic Acid	1.0	1.0
SR-350	1.5	1.5
DCP-BC	10.0	10.0
Sulfur	0.1	0.1
Total	567.6	508.6

* Unit: phr

Properties	Test Method	Formulation 3	Formulation 4
Compound Mooney Viscosity ML 1+4 @ 100°C	ASTM D1646	92.8	97.4
Pre-vulcanization characteristics Large Rotor at 125°C	ASTM D1646		
Minimum Viscosity (Vm)		54.9	57.9
t'5 (min)		22.42	20.82
t'35 (min)		37.12	35.77
Δt30		14.70	14.95
Rotorless Cure Meter (MDR, 180°C/20min)	ASTM D5289		
M _L (lb·in)		2.0	3.1
M _H (lb·in)		14.6	16.2
t _{s2} (min)		0.44	0.43
t _{c50} (min)		0.74	0.74
t _{c90} (min)		1.79	1.83

The information above is believed to be accurate and represents the best information currently available to us. Your attention is directed to the pertinent Material Safety Data Sheets for the products mentioned herein. All sales are subject to SK Global Chemical's standard terms and conditions of sale, copies of which are available upon request and which are part of SK Global Chemical's invoices and/or order acknowledgments. Except as expressly provided in SK Global Chemical's standard terms and conditions of sale, SK Global Chemical and its affiliates make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and SK Global Chemical and its affiliates assume no liability from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Cured at 180°C for 10 min

Properties	Test Method	Formulation 3	Formulation 4
Specific Gravity	ASTM D792	1.25	1.23
Hardness (shore A)	ASTM D2240	67	67
Tensile Strength (kgf/cm ²)	ASTM D412	89	101
Elongation (%)	ASTM D412	346	386
100% Modulus (kgf/cm ²)	ASTM D412	26.7	23.3
Tear Strength (kgf/cm)	ASTM D624	26.1	30.6

Heat Resistance

Properties	Test Method	Formulation 3	Formulation 4
Hardness (Change Point)	ASTM D2240	+13	+13
Tensile Strength (Change %)	ASTM D412	-4	-5
Elongation (Change %)	ASTM D412	-45	-42
Tear Strength (Change %)	ASTM D624	+5	+3

* After 96 hours oven aging at 160°C per ASTM D573

The **Innovative Chemical** Company

The global chemical company that never stops its transformation to build the best-ever chemical portfolio.
SK global chemical creates the new future of the chemical industry toward its customers and markets.

The general energy and chemical leader in the global market,
SK global chemical



SK global chemical Co., Ltd. 26, Jong-ro, Jongno-gu, Seoul, Korea

TEL +82-2-2121-5114 FAX +82-2-2121-7001

© 2016 SK global chemical Co., Ltd