

Product Data Sheet

# SUPRENE<sup>®</sup> 5206F

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SUPRENE EPDM 5206F is a non-oil extended grade with very high Mooney viscosity and high ENB content.

SUPRENE EPDM 5206F shows excellent extrusion processability and its moderate ethylene content gives this grade a better flexibility under low temperature, compared with high ethylene grades.

Especially, fast curing is possible with this grade because of its high ENB content.

SUPRENE EPDM 5206F is suitable for sponge made by continuous curing such as window seal, body seal for automotives and adiabatic sponge.

## Raw Polymer Properties

	Test Method	Unit	Min.	Max.	Typical Value
Mooney Viscosity, (ML 1+4, 150 °C unmilled)	ASTM D1646	-	56	66	61
Ethylene Content	ASTM D3900	wt%	58	62	60
ENB Content	ASTM D6047	wt%	6.8	8.8	7.8
DCPD Content	ASTM D6047	wt%	0.2	1.2	0.7
Oil Content	-	phr	-	-	-
Specific Gravity	ASTM D792	-	-	-	0.86
Volatile Matter	ASTM D5668	wt%	-	0.8	0.2
Ash	ASTM D5667	wt%	-	0.15	0.01
Physical Form, (kg/bale)	-	-	-	-	25kg (Friable Bale)

\* Ethylene Content + Propylene Content = 100%

## SUPRENE<sup>®</sup> 5206F

### Typical Properties

Properties	Test Method	S5206F
Mooney Viscosity ML 1+4 @ 150°C	ASTM D1646	61.0
Ethylene Content, wt%	ASTM D3900	60.0
ENB Content, wt%	ASTM D6047	7.8

### Guide Formulation

	S5206F
S5206F	100.0
FEF	80.0
Oil	50.0
ZnO	5.0
Stearic Acid	1.0
CMB	0.5
MBT(M)	1.0
TMTD(TT)	1.5
Sulfur	1.5
<b>Total</b>	<b>240.5</b>

\* Unit: phr

Properties	Test Method	S5206F
Compound Mooney Viscosity ML 1+4 @ 100°C	ASTM D1646	62.2
Pre-vulcanization characteristics Large Rotor at 125°C	ASTM D1646	
Minimum Viscosity (Vm)		39.2
t'5 (min)		15.5
t'35 (min)		26.7
Δt30		11.2
Rotorless Cure Meter (MDR, 160°C/30min)	ASTM D5289	
M <sub>L</sub> (lb·in)		2.2
M <sub>H</sub> (lb·in)		26.6
t <sub>S</sub> 2 (min)		2.1
t <sub>C</sub> 50 (min)		3.8
t <sub>C</sub> 90 (min)		7.6

### **Cured at 160°C for 20 min**

Properties	Test Method	S5206F
Specific Gravity	ASTM D792	1.10
Hardness (shore A)	ASTM D2240	68
Tensile Strength (kgf/cm <sup>2</sup> )	ASTM D412	159
Elongation (%)	ASTM D412	318
100% Modulus (kgf/cm <sup>2</sup> )	ASTM D412	41.2

### **Compression Set**

Properties	Test Method	S5206F
Compression Set (%)	ASTM D395 (Method B)	29.1

\* After 72 hours at 100 °C

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