Product Data Sheet

SUPRENE® 505A

SK global chemical

Product Data Sheet

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SUPRENE® 505A

SUPRENE EPDM 505A has lower Mooney viscosity than SUPRENE EPDM 505, and its mill processability is further improved.

It is Possible to mold with SUPRENE EPDM 505A various molded products within a short time because of its fast cure rate.

When SUPRENE EPDM 505A blended with diene type rubber, its dispersion is excellent. It can also be used more effectively by taking advantage of good ozone resistances.

SUPRENE EPDM 505A is suitable for sponge made by continuous curing. Low density sponge can be obtained through the curing.
It can also be used in various applications such as automotive tires, rubber coated fabrics, and automotive parts.

Raw Polymer Properties

	Test Method	Unit	Min.	Max.	Typical Value
Mooney Viscosity, (ML 1+4, 100℃ unmilled)	ASTM D1646	-	40	50	45
Ethylene Content *	ASTM D3900	wt%	52	58	55
ENB Content	ASTM D6047	wt%	8.4	10.4	9.4
Oil Content	-	phr	-	-	-
Specific Gravity	ASTM D792	-	-	-	0.86
Volatile Matter	ASTM D5668	wt%	-	0.8	-
Ash	ASTM D5667	wt%	-	0.15	-
Physical Form, (kg/bale)	-	-	-	-	25kg (Dense Bale)

* Ethylene Content + Propylene Content = 100%

SUPRENE® 505A

Typical Properties

Properties	Test Method	S505A
Mooney Viscosity ML 1+4 @ 100℃	ASTM D1646	45.0
Ethylene Content, wt%	ASTM D3900	55.0
ENB Content, wt%	ASTM D6047	9.4

Guide Formulation

	S505A
S505A	100.0
FEF	80.0
P-4W	45.0
ZnO	5.0
Stearic Acid	1.0
MBTS(DM)	1.0
TMTD(TT)	0.5
DPTT(TRA)	0.5
ZnBDC(BZ)	2.0
Sulfur	1.5
Total	**236.5**

** Unit: phr*

Properties	Test Method	S505A
Compound Mooney Viscosity	ASTM D1646	28.9
ML 1+4 @ 100℃		
Pre-vulcanization characteristics	ASTM D1646	
Large Rotor at 125℃		
Minimum Viscosity (Vm)		17.4
t'5 (min)		8.82
t'35 (min)		16.32
Δt30		7.50
Rotorless Cure Meter (MDR, 160℃/30min)	ASTM D5289	
M_L (lb·in)		0.9
M_H (lb·in)		25.4
t_S2 (min)		1.52
t_C50 (min)		2.65
t_C90 (min)		4.77

Cured at 160℃ for 10 min

Properties	Test Method	S505A
Specific Gravity	ASTM D792	1.09
Hardness (shore A)	ASTM D2240	71
Tensile Strength (kgf/cm^2)	ASTM D412	130
Elongation (%)	ASTM D412	266
100% Modulus (kgf/cm^2)	ASTM D412	50.2

Heat Resistance

Properties	Test Method	S505A
Hardness (Change Point)	ASTM D2240	+4
Tensile Strength (Change %)	ASTM D412	+4
Elongation (Change %)	ASTM D412	-20

** After 72 hours oven aging at 100 ℃ per ASTM D573*

The Innovative Chemical Company

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