

NBR-PVC Rubber-Plastic Blends

Technical Data Sheet

SZ 230715 -002

NV Series

V: A/2

Description: NV series is a blend of nitrile rubber and PVC. The rubber compound is vulcanized with the vulcanizing agent is added (the vulcanizing agent is selected according to the process requirements).

Applications: NV rubber and plastic blend rubber has excellent properties such as oil resistance, Ozone resistance & excellent weather resistance, high strength and high hardness, so it is suitable for manufacturing oil pipes, rubber pipes, wires and cables, sheaths, belts, soles, rollers and other products.

Special properties:

- Excellent abrasion & tear resistance
- Excellent ozone & weather resistance
- Excellent grease and solvent resistance
- Excellent antistatic property
- Good low temperature resistance
- excellent in flame retardancy
- Rapid calendaring and extrusion and smooth surface
- The storage stability is good

Characteristics

Product name	NV2355	NV3355A	NV5090
Type	NBR+PVC		
B-AN%	23	33	50
ML 1+4@100℃	55±10	55±10	90±5
Color	Yellow	Light yellow	White

Vulcanization performance: 1. Sulfur, overspeed thiuram accelerators TMTD and TETD, and sulfenamide accelerators are added.

2. Accelerator CZ and thiazole accelerator DM were vulcanized at 170 °C @ 6 min.

Standard formula

Name of raw material	NV2355	NV3355A	NV5090
	Basic copy, phr		
Rubber-plastic blend	100	80	100
Nitrile rubber, N3350		20	
Carbon black reinforcing agent, N550	55	55	10
Functional filler PF81	/	10	/
Natural Gas Semi-Reinforcement, N770	/	/	55
Silica, 136	5	10	/
Plasticizer, Sanepar758	20	25	/
Plasticizer, Sanepar756	/	/	30
Zinc oxide, ZNO	5	5	5

Sincere

Open

Win-Win

Stearic acid, STA	1	1.5	1.5
Antioxidant, RD	1	1	1
Antioxidant, 4010 NA	1.5	1.5	1
Protective agent, paraffin	2	1	3
Internal release agent, 985P	1	1.5	/
Resin, HM601	2	/	/
Vulcanizing agent, S-80	0.65	0.62	/
Vulcanizing agent, MC-2	/	/	0.5
Accelerator, TMTD	1.2	1	0.9
Accelerator, DM	0.65	0.5	/
Accelerator, TETD	/	/	0.9
Accelerator, CZ	1.5	1.2	1.6

Product performance: NBR + PVC compound and vulcanized rubber

Product name			NV2355	NV3355A	NV5090
Project	Test method	Unit	Typical value		
Mooney viscosity (ML 1+4@ 100 °C)			42	35	31

Sulfur change performance test: 180 °C × 5min × 1arc

Minimum torque	ASTM D2048	lb-in	0.38	0.25	0.21
Maximum torque		lb-in	4.78	4.77	5.64
Scorch time TS2		Sec	77	77	59
Optimum vulcanization time TC90		Sec	114	116	111

1. Mechanical properties 1.1 175 °C × 5 min after vulcanization

Specific gravity	ASTM D297	g/cm3	1.201	1.249	1.226
Hardness (Shore A)	ASTM D2240	Points	65	65	55
Tearing strength	ASTM D412	Kg/cm2	11.56	12.41	14.84
Elongation at break		%	441	561	650
M100		Kg/cm2	3.49	2.57	2.35

1. Mechanical properties 1.2 changes in properties after aging at 100 °C for 70 hours

Hardness (Shore A) Change	ASTM D2240	Points	+8	+5	+5
Change in breaking strength	ASTM D412	%	-22.5	-15.4	-12.05
Change in elongation at break	ASTM D412	%	-24.5	-20.75	-20.74

2. Oil resistance 2.1 Performance change after aging in ASTM 901 oil at 100 ° C for 70 hours					
Hardness (Shore A) Change	ASTM D2240	Points	+5	+3	+2
Change in breaking strength	ASTM D412	%	+5.75	+3.29	+1.07
Change in elongation at break	ASTM D412	%	-20.78	-14.79	-9.87
Change in volume change rate	ASTM D471	%	-10.24	-4.28	-2.08
2. Oil resistance 2.2 Performance change after aging in ASTM 903 oil at 100 ° C for 70 hours					
Hardness (Shore A)	ASTM D2240	Points	-9	-5	-3
Tearing strength	ASTM D412	%	7.78	10.08	12.89
Elongation at break	ASTM D412	%	324	478	579
Volume change rate	ASTM D471	%	+25.8	+19.54	+14.78
2. Performance change of oil-resistant 2.3 after aging in fuel C at 40 ° C for 48 hours					
Volume change rate	ASTM D471	%	+38.89	+34.23	+30.69
3. The compression permanent deformation is 100 ° C for 70 hours (the vulcanization condition of the sample used in the experiment meets 170 ° C × 10 min).					
Compression Set	ASTM D395	%	39.74	40.79	45.34
4. Ozone resistance 80pphm × 20% elongation × 40 ° C × 120 hours					
Whether it is cracked	ASTM D1171	/	No	No	No
5. Low temperature retraction performance					
TR10	GB/T 7758	°C	-48	-42	-43

Packing: NBR + PVC rubber and plastic blend shall be packed and transported in 25 kg/carton.

Storage and shelf life : NBR + PVC rubber and plastic blends in unopened original packaging at a temperature below 40 ° C from the date of production indicated on the packaging .Keep for 18 months from the date of expiration.

For More Product Information, Please Visit Our Website: www.sanezen.com

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