

AROVANCE

AROVANCE SERIES

AROVANCE N991 W1

AROVANCE N991 W1 is a medium thermal specialty carbon black built on a single defining property cluster – large primary particle size, very low surface area and low structure (OAN) – which together deliver exceptionally high loadability. Its very low reinforcement lets formulators load 1.3× to 3× more filler at equal hardness than with reinforcing furnace blacks, lowering compound cost per volume while preserving mechanical balance.

Designed for applications requiring ultra-low reinforcement, high purity and excellent processing, AROVANCE N991 W1 reduces compound viscosity and mixing energy, widens scorch safety and lowers hysteresis (tan δ, Payne effect, dynamic stiffness) – cutting heat build-up and improving vibration isolation. It acts as a true 1:1 drop-in for existing MT (N990) blacks and as a high-ratio extender for N550/N660/N762/N330-type grades, giving uniform dispersion, dimensional stability and consistent performance across rubber, tire, sealing, refractory and polymer systems.

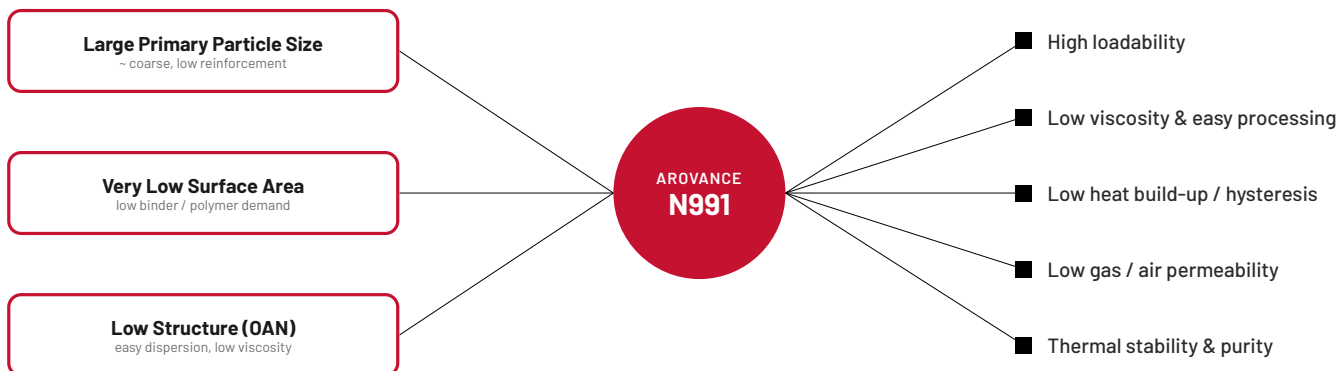
KEY APPLICATIONS

- Molded rubber goods, seals & gaskets (drop-in MT replacement)
- Engine/motor mounts & anti-vibration (low dynamic stiffness)
- Hoses & belts – fuel, oil, conveyor (high loadability, low swell)
- Tire curing bladders & inner liners (heat transfer, low permeability)
- Wire, cable insulation & sheathing
- Refractory bricks, castables & taphole clay (carbon source)

PERFORMANCE FEATURES

- High loadability: 1.3×–3× filler at equal hardness
- Lower viscosity & mixing energy
- Reduced hysteresis – less heat build-up
- Lower gas/air permeability, higher resistivity
- True 1:1 drop-in for MT (N990) blacks
- Ultra-low reinforcement, high purity & dispersion

Defining Properties → Cross-Industry Benefits



TYPICAL VALUE

Test Items	Unit	Standard
Physical Form	–	Powder
Oil Absorption Number (OAN)	cm ³ /100g	37 – 47
Iodine Adsorption Number	g/kg	6 – 12
Heating Loss	%	≤ 0.4
Ash Content	%	≤ 0.2
Sieve Residue (#35, 500 μm)	ppm	≤ 10
Sieve Residue (#325, 45 μm)	ppm	≤ 800
pH Value		6 – 11
Test Method		ASTM D1799

APPLICATION FIELD

Application	Recommended Dosage
MT (N990) Drop-In Replacement	1 : 1 direct
N550 Extension (NBR / EPDM / ACM)	2.0 – 2.3 : 1
N660 / N762 Replacement (MRG)	1.3 – 2.0 : 1
N330 Extension (tire bladder)	2.2 – 3.0 : 1
NBR Fuel & Oil Hose (loading)	110 → 205 phr
Refractory Brick / Taphole Clay	0.5 – 15 wt %

■ Replacement ratio rises with the reinforcement of the black being replaced (≈1.3:1 for N762 up to 3.0:1 for N330); refractory use is on a wt % or graphite-replacement basis. Recommended dosage varies with formulation and processing conditions.

Physical Form: Powder | Packaging: 25 kg paper or PE bag and 1 MT Jumbo Bag

ISTAR MATERIALS

Ground Floor, Plot 1/3, Priyadarshini Parisar, West Yellow Building,
Opp. Hotel Grand Dhillon, Behind IDBI Bank, Bhilai, Chhattisgarh – 490020, India

+91-9301988995

+91 98305 20016

info@istarmaterials.com

Notice and Disclaimer

The data and information provided herein are based on our current knowledge and experience and are believed to be accurate. However, ISTAR MATERIALS cannot guarantee that similar results will be obtained by others as processing conditions and formulations may vary. This information is provided for guidance purposes only and does not constitute a warranty or guarantee of performance.