

CONDUCTIVE & ESD

VOLTIX Series

VOLTIX 11

VOLTIX 11 is a high-structure conductive carbon black (DBP 170 cc/100g, BET 75 m²/g) that builds a continuous conductive network at very low loading, reaching the conductivity percolation threshold sooner than standard furnace blacks and moving a compound from insulating ($>10^9 \Omega\text{-cm}$) through antistatic ($10^9\text{--}10^4$) into the conductive band ($<10^4 \Omega\text{-cm}$) at low addition.

Its higher structure and clean, low-grit profile (≤ 10 ppm 325-mesh residue, $\leq 0.2\%$ heating loss) give easy, uniform dispersion with very few coarse particles – well suited to thin conductive films, ESD compounds, cable shielding and antistatic packaging. As with all percolation systems, adequate – not excessive – dispersion is preferred to keep the conductive network continuous.

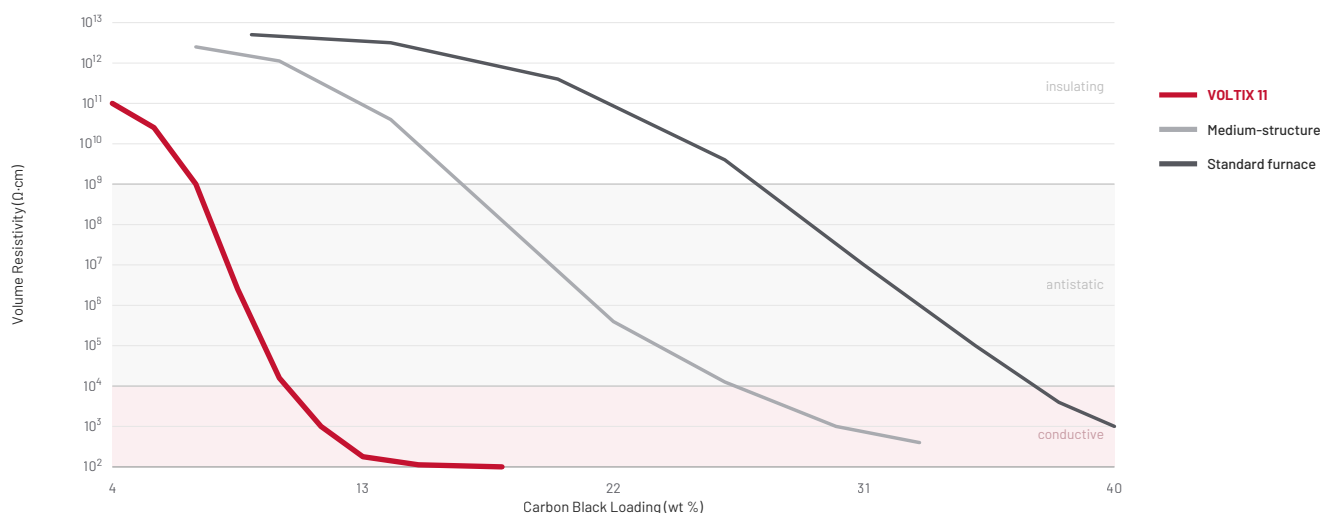
KEY APPLICATIONS

- Conductive & ESD plastics
- Cable semi-conductive shielding
- Conductive coatings & primers
- Antistatic packaging & trays
- Conductive rubber & elastomers

PERFORMANCE FEATURES

- Lower percolation threshold (higher structure)
- Conductivity at very low loading
- Clean, low-grit (≤ 10 ppm) for thin films
- Stable volume & surface resistivity
- Easy, consistent dispersion
- Minimal impact on mechanicals

Volume Resistivity vs Loading – Conduction Bands



TYPICAL VALUE

Test Items	Unit	Standard
Physical Form	–	Bead
DBP Absorption No.	cc/100g	170 ± 10
BET Surface Area	m ² /g	75 ± 10
PH Value		8.0 ± 1.0
Tint Strength VS IRB#3	%	65 ± 6
Heating Loss	%	≤ 0.2
Sieve Residue 325M	ppm	≤ 10
Toluene Extract	%	≤ 99.6
Ash	%	≤ 0.5

APPLICATION FIELD

Application	Recommended Dosage
Antistatic Compounds	12 – 22%
ESD Packaging	10 – 20%
Antistatic Polymer Trays	10 – 20%
Conductive Coatings (economy)	10 – 18%
Cable Compounds (low-conductivity)	20 – 35%
Economy ESD Rubber	25 – 40%

Recommended dosage can vary with system, electrode/compound design and dispersion conditions.

Physical Form: Bead | Packaging: 20 kg paper or PE bag | CAS 1333-86-4 · EINECS 215-609-9

ISTAR MATERIALS

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Notice and Disclaimer

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