

## VULCAN<sup>®</sup> XC706 carbon black



### GENERAL DESCRIPTION

VULCAN XC706 carbon black is a pelleted, highly reinforcing furnace carbon black with a high surface area per unit mass. VULCAN XC706 carbon black is designed to impart electrical conductivity with good reinforcement to rubber compounds.

### PERFORMANCE FEATURES

The effect of VULCAN XC706 carbon black on the electrical conductivity of rubber compounds depends on the carbon black loading. The percolation curve for VULCAN XC706 carbon black relative to other carbon blacks in rubber can be found on the back page.

Rubber components having electrical resistivity in the range  $10^3$  to  $10^6$  ohm-cm are normally classified as "antistatic" and components below  $10^3$  ohm-cm are classified as "conductive". VULCAN XC706 carbon black can meet these conductivity requirements without need for very high carbon black loadings. Rubber compounds containing VULCAN XC706 carbon black are typically easier to process than compounds based on very super conductive carbon black products.

The rubber reinforcement properties of VULCAN XC706 carbon black are similar to those of ASTM N330 type carbon black, but with better abrasion resistance.

### TYPICAL APPLICATIONS

- ◆ Antistatic and conductive applications
- ◆ Hospital flooring and sheeting
- ◆ Wire and Cable jacketing
- ◆ Printing rolls
- ◆ Conveyor and power transmission belts
- ◆ Hoses for mining, petroleum

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## TECHNICAL DATA

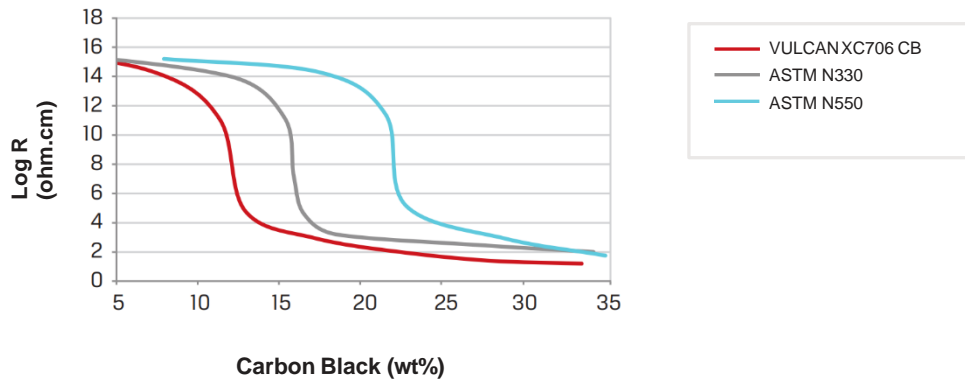
**TEST FORMULATION:** 100 phr EPDM, 75 phr Paraffinic Oil, 65 phr CaCO<sub>3</sub> with sulfur cure vulcanization system

Loading (phr):	VULCAN XC706 CB	ASTM N330	ASTM N550
	98	96	103

## PROPERTIES

Mooney Viscosity ML (1+4) at 100°C, (M.U.)	65	58	60
Hardness, Shore A	65	65	65
Tensile Strength, MPa	13.7	13.8	12.0
100% Modulus, MPa	2.6	2.9	3.4
200% Modulus, MPa	5.1	6.0	6.6
300% Modulus, MPa	7.7	9.0	8.7
Elongation at Break, %	499	436	416
Zwick Rebound, %	35	39	46

## PERCOLATION CURVE IN THE EPDM TEST FORMULATION



For more information, please refer to the applicable Safety Data Sheet (SDS) available from your Cabot representative at [cabotcorp.com/contact](http://cabotcorp.com/contact).

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