CABOT

PRODUCT DATA SHEET

STERLING® SO carbon black







GENERAL DESCRIPTION

STERLING® SO carbon black is a semi-reinforcing material of the class previously known as Fast Extrusion Furnace. STERLING SO conforms to ASTM N550 carbon black target values.

PROPERTIES	TEST METHOD (ASTM)	UNITS	TYPICAL VALUE
Iodine adsorption number	D1510	mg/kg	43
Oil absorption number (OAN)	D2414	ml/100g	121
OAN after crushing (COAN)	D3493	ml/100g	84
STSA surface area	D6556	m^2/g	40

PERFORMANCE FEATURES

Compared to reinforcing carbon black products, STERLING SO carbon black gives easier dispersion, easier processing and higher resilience in rubber, but with lower tensile, tear and abrasion properties. STERLING SO carbon black is particularly suited for rubber applications which require good extrusion characteristics, low hysteresis with more reinforcement than ASTM N700 and N600 type carbon black grades.

TYPICAL APPLICATIONS

- Industrial Rubber Products
  - Extruded rubber articles like hoses and construction profiles
  - Engine mounts and belt inner layers
  - Molded rubber parts
- Tires
  - Sidewalls and ply skim compounds in passenger car and light truck tires

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TECHNICAL DATA

The table shows the balance in basic rubber properties between STERLING® SO carbon black and two other semi-reinforcing carbon blacks in ASTM SBR test formulation at equal, 60 Shore A, phr loadings.

Test Formulation: ASTM D3191 (SBR)

	STERLING® SO	ASTM N660	ASTM N772
Loading (phr)	40	50	62
PROCESSING PROPERTIES			
Extrusion Shrinkage, %			
ASTM D2230 Method B	58	60	61
PHYSICAL PROPERTIES			
Hardness			
Shore A	60	60	60
Tensile Properties			
Tensile Strength, MPa	22.2	21.3	20.5
300% Modulus, MPa	10.8	9.5	9.9
Elongation at Break, %	525	550	550
Resilience, ASTM D1054			
% relative to STERLING SO	100	99	97

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