



3770 Embassy Parkway Akron, Ohio 44333
 330-535-2100 ♦ 800-321-2260 ♦ Fax 330-535-8947

CARBON BLACKS

VULCAN[®], REGAL[®], STERLING[®]

PRODUCT DESCRIPTION:

Carbon Blacks are the most utilized fillers in the Rubber Industry. Based on its cost and performance, no other filler can match the properties of carbon black. Used for nearly 100 years, carbon blacks have been reinforcing rubber compounds both physically and chemically. Cabot Corporation has been producing carbon blacks for nearly 120 years and is now the world leader in the manufacturing of this essential ingredient. With production facilities in 18 countries on 5 continents, Cabot produces and develops carbon blacks for all rubber applications. Vulcan, Regal and Sterling blacks are standard furnace grades most used in the industry. They vary in surface area (Iodine) and structure (DBP) so compounders can select the appropriate black, or combination of blacks, for their applications. The Vulcan blacks are considered reinforcing or hard blacks. These Sterling blacks are considered semi-reinforcing blacks.

REINFORCING:

<i>Vulcan</i>	<i>8</i>	<i>10H</i>	<i>6</i>	<i>7H</i>	<i>300*</i>	<i>3</i>	<i>M</i>	<i>K</i>
ASTM	N110	N134	N220	N234	N326	N330	N339	N351
Iodine	145	142	121	120	82	82	90	68
DBP	113	127	114	125	72	102	120	120

* Regal 300 black is N326 reinforcing black.

SEMI-REINFORCING:

<i>Sterling</i>	<i>SO</i>	<i>VH</i>	<i>V</i>	<i>NS-1</i>	<i>SRF¹</i>	<i>NS</i>	<i>1120²</i>
ASTM	N550	N650	N660	N762	N772	N774	N990
Iodine	43	36	36	28	28	29	10
DBP	121	122	90	64	65	72	35

¹ Regal SRF black is N772 semi-reinforcing.

² Sterling 1120 is not an exact match for N990.

Compounders choose carbon blacks basically by Iodine and DBP values. Iodine number represents the black's surface area. The higher the number, the more surface area is available to reinforce the rubber matrix. This affects failure properties like abrasion, tear, tensile strength, etc. The DBP number represents the structure (bulkiness) of the black. Again, the higher DBP number equates to higher structure. This affects non-failure properties like modulus, die swell, loading capacity, conductivity and especially dispersion. For specialty cleaner (low impurities) blacks for improved: extrusion and injection molding, surface appearance, conductivity, dispersability, dynamic and flex properties, ECD (electrochemical degradation), etc. see additional Sterling, Spheron[®] and Conductive Carbon Blacks Technical Data Sheets.

* VULCAN, REGAL, SPHERON and STERLING are registered trade names of Cabot Corporation. tee - 2/19/21, t-vulcan, regal, sterling

Included with its product literature and upon the request of its customers, Akrochem provides product specifications and evaluations, suggested formulations and recommendations and other technical assistance, both orally and in writing (collectively the "Technical Information"). Although Akrochem believes all Technical Information to be true and correct, it makes no warranty, either express or implied, as to the accuracy, completeness, or fitness of the Technical Information for any intended use, or the results which may be obtained by any person using the Technical Information. Akrochem will not be liable for any cost, loss or damage, in tort, contract or otherwise, arising from customer's use of Akrochem products or Technical Information. It is the customer's sole responsibility to test the products and any Technical Information provided to determine whether they are suitable for the customer's needs. Before working with any product, the

customer must read and become familiar with available information concerning its hazards, proper use, storage and handling, including all health, safety, and hygiene precautions recommended by the manufacturer. Nothing in the Technical Information is intended to be a recommendation to use any product, method, or process in violation of any intellectual property rights governing such product, method, or process. No license is implied or granted by Akrochem as to any such product, method, or process. AKROCHEM CORPORATION DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE, RELATED TO ANY PRODUCTS OR TECHNICAL INFORMATION PROVIDED BY AKROCHEM.