

REGAL[®] 300



Cabot revolutionized the industry in the mid 1950's when it patented the process of adding potassium salts in trace amounts to the reactor. These salts prohibited the formation of "structure," allowing for the first time, the manufacture of low structure carbon blacks. The Cabot tradename REGAL referred to carbon blacks made with the new low-structure process. REGAL[®] 300 was originally introduced as a Channel black replacement as its low structure gave in-rubber properties similar to those imparted by acidic Channel black. With the advent of the steel belted radial passenger tire, REGAL 300 went on to dominate the steel coat or steel skim compound market. REGAL 300 conforms to ASTM grade N326, but to this day Cabot dominates the N326 market with REGAL 300, a responsibility Cabot does not take lightly.

REGAL 300 is particularly suited for rubber goods that need high green strength with low viscosity and lengthy scorch times. The relatively high surface area of REGAL 300 accounts for the high green strength while the aforementioned low structure gives low viscosity and excellent scorch resistance. We believe these key properties in turn account for its popularity in steel cord skim compounds. The low structure/relatively high surface area of REGAL 300 also allow it to impart high elongation and good tear resistance.

Performance Features

- Excellent green strength
- Low viscosity resulting in excellent scorch resistance
- Low structure / relatively high surface area also imparts high elongation and good tear resistance

Typical Applications

- Passenger tire steel tread ply coat or skim
- Truck tire steel tread and carcass ply skim or coat compounds
- Industrial product applications needing the unique processing or tear strength characteristics



REGAL 300 Carbon Black from Cabot Corporation

REGAL 300 carbon black, due to its low structure and HAF surface area, imparts good green strength with low viscosity as well as high elongation with good tear resistance.

Recipe: 50 S-1710 / 50 BR , 69 black, 33.75 total oil, 5 ZnO, 1.5 stearic acid, 1.0 CBS, 1.5 S

Carbon Blacks	Sterling S0 / N550	REGAL 300 / N326	Vulcan 3H / N347
Treadwear rating		94	108

Processing Properties

Carbon Blacks	Sterling S0 / N550	REGAL 300 / N326	Vulcan 3H / N347
Mooney Viscosity ML 1+4 @ 100C	36	37	41.5
Monney Scorch ML @ 135C	T10 20.7	19.5	18.7
Extrusion Shrinkage ASTM D 2230, method B % relative to N330	100	89.4	86.0
Visual Dispersion ASTM D 2663	4.4	4.5	4.5

Physical Properties

Carbon Blacks	Sterling S0 / N550	REGAL 300 / N326	Vulcan 3H / N347
ASTM D 1765 Cured 60' @ 145C			
Tensile Strength, MPa	18.3	19.0	18.6
00% Modulus, MPa	6.6	8.4	8.8
Elongation at break,%	630	560	530
Hardness, Shore A2	54	56	55
Resilience, ASTM D 1054 Cured 70', % relative to N330	100	101	103

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