

## VULCAN® J



VULCAN® J carbon black is a lower structure version of VULCAN M. As such, it is a cost-effective carbon black to use in place of VULCAN 6, N220, when a lower modulus level than that imparted by VULCAN M, N339, is needed.

VULCAN J was introduced by Cabot Corporation in the early 1970's as part of a family of blacks that incorporated a breakthrough reactor technology. It imparts good wear resistance to all tire tread rubbers. VULCAN J is also a medium structure carbon black; thus it gives excellent scorch safety, lower modulus than VULCAN M ( N339), and higher elongation. VULCAN J conforms to ASTM grade N375.

VULCAN J is particularly suited for tire treads that require good wear resistance with improved cut/chip resistance, including those made from emulsion SBR, solution SBR, BR, natural rubber, or blends of any of these polymers. In the industrial rubber goods area, VULCAN J is also recommended for conveyor belts, solid tires, and other products requiring good abrasion resistance with good cut/chip resistance.

### Performance Features

- Good abrasion resistance
- Lower modulus / higher elongation than N339, VULCAN M
- Economical versus N220, VULCAN 6

### Typical Applications

- Passenger and truck tire treads
- Passenger and truck tire retreads
- Industrial product applications including solid tires, conveyor belt covers, hose covers, seals and a variety of molded products

### VULCAN J Carbon Black from Cabot Corporation

VULCAN J carbon black represents an economical way to obtain good treadwear, abrasion resistance, and improved scorch and cut / chip resistance.

Recipe: 65 S-1712 / 35 BR , 75 black, 50 total oil, 3 ZnO, 2 stearic acid, 2 AO, 2.5 wax, 1.4 CBS, 1.75S

Carbon Blacks	VULCAN 6 / N220	VULCAN J / N375	VULCAN 3H / N347
Treadwear rating	100	98	94



### Processing Properties

Carbon Blacks		VULCAN 6 / N220	VULCAN J / N375	VULCAN 3H / N347
Mooney Viscosity ML 1+4 @ 100C		43	43	43
Mooney Scorch ML @ 135C	T5	21.0	18.5	19.3
	T10	22.6	20.0	20.4
Extrusion Shrinkage ASTM D 2230, method B % relative to N220		100	101.9	96.0

### Physical Properties

Carbon Blacks		VULCAN 6 / N220	VULCAN J / N375	VULCAN 3H / N347
ASTM D 1765 Cured 60' @ 145C				
Tensile Strength, MPa		19.7	19.6	18.6
300% Modulus, MPa		7.0	7.6	8.6
Elongation at break, %		600	575	530
Hardness, Shore A2		56	56	56
ASTM D 1054 resilience 70' cure, % relative to N220		100	101.6	106.6

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