

SPECIALTY CARBON BLACKS FOR PLASTICS





Performance and leadership in black plastics

Cabot Corporation is a global performance materials company and we strive to be our customers' commercial partner of choice. We have been a leading manufacturer of carbon black and other specialty chemicals for more than 130 years, and we have supplied additives to the plastics industry since its inception.

Our global reach enables us to work closely with customers to meet the highest standards for performance, quality and service. Our global production network and three applications development facilities provide our customers with global service capabilities as well as the latest technical innovations.

Global reach

We support customers around the world in our global production and applications development centers

◆ North America

Canada
Mexico
United States

◆ South America

Argentina
Brazil
Colombia

◆ Europe, Middle East & Africa

Belgium
Czech Republic
France
Germany
Italy
Latvia
Norway
Switzerland
The Netherlands
United Arab Emirates
United Kingdom

◆ Asia Pacific

China
India
Indonesia
Japan
Korea
Malaysia
Singapore

With approximately 4,500 employees worldwide, we continue to create a diverse environment rooted in values and sustainability.

We operate 44 manufacturing sites in 21 countries, all with local management teams. We have a global footprint in order to serve our customers throughout the world.

Our offerings for plastics

We offer specialty carbon blacks to improve the performance of plastics and extend their useful life. Industries served include automotive, wire and cable, pressure pipe, film and sheet and many others. We have experience in all processing technologies, including all advanced extrusion and molding methods. Our specialty carbon blacks for plastics have been formulated to meet application-specific needs and are manufactured to exacting standards. Equally important, our technical sales and service teams are available to work with you and provide additional product information and support to aid your selection of the best product for your specific application. Regardless of your application, our specialty carbon blacks provide differentiated performance and reliable quality.

Our brands

We supply a diverse range of specialty carbon black products to meet performance and processability requirements across many industries and end uses. Offered in pellet and fluffy form, our long-established products for plastics include VULCAN®, ELFTEx® and BLACK PEARLS® specialty carbon blacks. While our products have performed successfully in plastic applications for more than 50 years and are top choices for the plastics industry, we continue to innovate and develop new products to drive our customers' product performance.



Products for plastics applications

INDUSTRY / APPLICATION	KEY CB PERFORMANCE REQUIREMENTS	TYPICAL POLYMERS	SUITABLE PRODUCTS
Plastic film and sheet applications			
Packaging and lamination	Color / opacity Surface smoothness / quality	PE, copolymer PE	BLACK PEARLS® 4040, 160, 120 ELFTEX® 570
General purpose / utility	UV / weatherability Dispersibility		
Agricultural film and pipe			
Irrigation pipe and tape	UV / weatherability Microdispersion Surface smoothness Mechanical strength	PE, copolymer PE	BLACK PEARLS 4040, 160, 120 ELFTEX 570 VULCAN® 9A32
Mulch and silage film	UV / weatherability Opacity Mechanical strength		
Geosynthetics			
Geogrids	UV / weatherability	PE, copolymer PE	ELFTEX TP BLACK PEARLS 4040, 280
Geotextiles	Color / opacity		
Geomembranes	Dispersibility		
Plastic pressure pipe			
Pressure pipe	UV / weatherability Physical cleanliness (e.g., ash) Chemical cleanliness (e.g., sulfur) Dispersibility	PE	ELFTEX P100, TP
Plastic pipe			
Non-regulated and other pipe	UV / weatherability Color Dispersibility	PE, PP, PVC	BLACK PEARLS 4040, 280 ELFTEX 570
Wire and cable			
High voltage cable, semiconductive	Conductivity	EVA, EEA, EBA	VULCAN XC500
Medium voltage cable, semiconductive	Surface smoothness Physical cleanliness (e.g., ash) Chemical cleanliness (e.g., sulfur)		VULCAN XC72, XC68, XC200
Conductive jacketing		PE	VULCAN XCmax™ 22
UV jacketing	UV / weatherability Color Dispersibility	PE, PVC	VULCAN 9A32 ELFTEX TP ELFTEX 570
Plastic molded parts			
Molded parts for consumer products	Color Surface smoothness	PP, ABS, PC/ABS blends, PA, POM	BLACK PEARLS 630 800, 450A111, 4840
Molded parts for industrial applications	Dispersibility		

INDUSTRY / APPLICATION	KEY CB PERFORMANCE REQUIREMENTS	TYPICAL POLYMERS	SUITABLE PRODUCTS
Food contact applications in plastics			
Molded and extruded food contact applications	PAH levels Chemical cleanliness (e.g., sulfur) Physical cleanliness (e.g., ash) Color / opacity	PE, PP, PET, PS	BLACK PEARLS 4350, 4750 ^{1,2} Other regions: additional products
Automotive parts			
Interior	Color UV / weatherability Surface smoothness / quality Mechanical strength	PP, ABS, PC/ABS blends, PA	BLACK PEARLS 900, 800, 4840, 717 ELFTEX 570 VULCAN 9A32
Exterior			
Under the hood	Dispersibility	PA, POM, PP	BLACK PEARLS 1300, 800 ELFTEX 570
Fuel systems (conductive/ESD)	Conductivity		VULCAN XCmax 22, XC72, XC605
Synthetic fiber and textile fabrics			
Apparel	Physical cleanliness (e.g., ash) Color Dispersibility Filterability	PET, PA, PP	BLACK PEARLS 5560, 4560i, 3560
Home / carpets			
Technical, load-bearing (e.g., nylon)	Color Surface smoothness / quality Mechanical strength		BLACK PEARLS 5560, 4560i, 3560 ELFTEX 570
Conductive and ESD applications			
Electronic and electrical			
IC carrier tapes and trays		PS, PS/PPO blends, PC	
ESD films		LDPE, LLDPE, EVA	
ESD corrugated boards		PS, PS/PPO blends	
ESD boxes		PP	
ESD foams (associated polymer is PP)	Conductivity Mechanical strength	PPO, PES	VULCAN XCmax 22, XC72, XC605, XC305
Safety and other	Dispersibility Chemical cleanliness (e.g., sulfur)		
Containers		PP, HDPE	
Fiber / slit tape		PP	
Conveying		PE, PP	
Industrial and consumer conductive moldings		ABS, PP, PS, PA, PE	
Automotive			
Fuel systems		PA, POM, PP, PE	

1. Information current at publication. For assurance that a carbon black product can be used in food contact applications, a Cabot issued food contact certification statement is required. Please contact your local Cabot representative.

2. This product meets U.S. Food and Drug Administration (FDA) requirements (21 CFR 178.3297) for contact with food when used as a colorant in polymers.

Relative product performance

Our specialty carbon blacks products provide customers with numerous performance and processing benefits. Among these benefits, color, UV / weatherability and conductive performance are the primary selection drivers. Relative color and UV/weatherability product performance for select products are shown in Figures 1 and 2, respectively.



Figure 1:
Color performance for select specialty carbon blacks

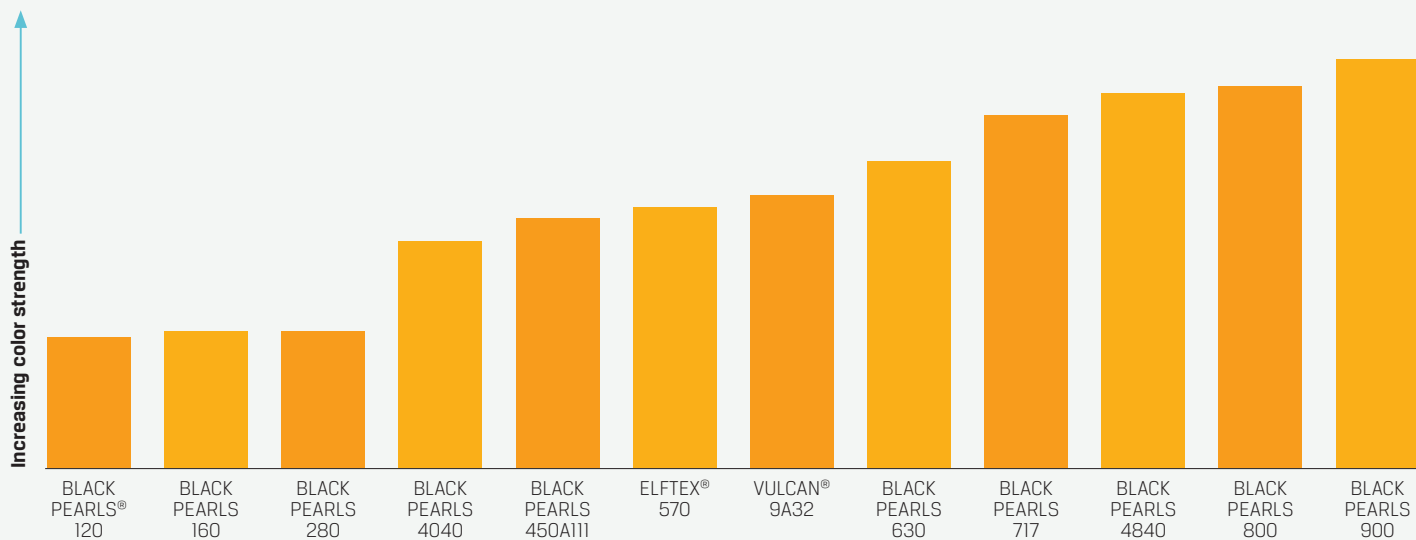
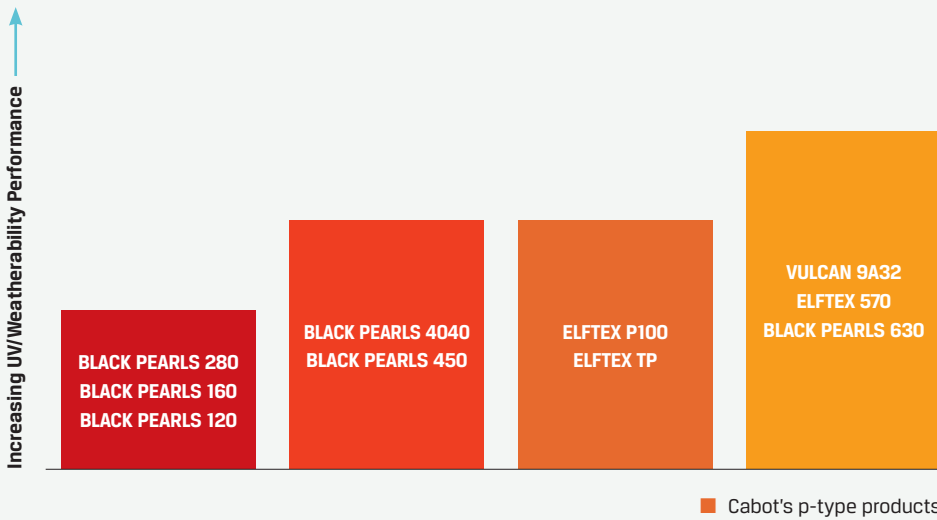


Figure 2:
UV / weatherability performance for select specialty carbon blacks



For further information to help you select the best product for your specific application, please contact your Cabot representative.



Additional references

This Global Selection Guide provides high-level information about our specialty carbon black product offerings.

For application-specific products, please refer to our respective literature or contact your Cabot representative.

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