

Specially Engineered

Carbon Black

“Provide world class quality and become preferred supplier leading to profitable organization and contributing to stakeholders at large.”



SPECIALLY ENGINEERED CARBON BLACK

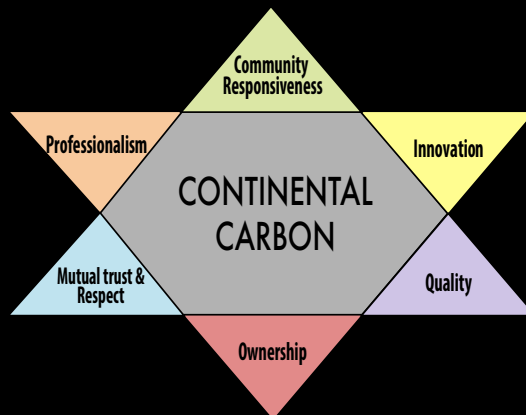
We are a part of Continental Carbon Company, the 5th largest Carbon Black Company globally. We have the SECB division in our Indian Location at Ghaziabad (UP). The development of INNOVATIVE grades for Plastics, TPE and Conductive Compounds application is at the CORE of this distinctly separate work. A dedicated plant in the works complex ensures effective quality and performance. The Figure below shows our focus:



SHELL Consists of :-

1. Effective Customer Service
2. Assistance in Solution Provision to Customer
3. Share Our Learning with Customer

- ↻ For the Plastics Industry, We have grades for entire Polyolefin and styrenics black coloration as well as black coloration of Some Engg. Plastics and TPE.
- ↻ Our present offering is of 8 grades of Carbon Black for master batch and compounds applications. Apart from this we have a conductive carbon black series.
- ↻ Our products offer superior dispersion characteristics, filterability, jetness and UV absorption capacities. A few more grades for still wider applications are under development.
- ↻ Our Technology centre at Houston provides the technical assistance to develop Products with superior quality .We assure the quality of the Product through rigorous in-house quality control checks in our NABL accredited R& D facility.



We are also certified in ISO TS 16949:2009, ISO14001:2004, OHSAS18001:2007.

Your feedback and continued patronage is of utmost importance to us, as we believe in "Superior Value Deliverance"

CARBON BLACK DISPERSION IN PLASTICS

Carbon black particles are fluffy and light thus rendering them difficult to handle physically. More difficult however is the ability to disperse them effectively in plastics. Broadly speaking dispersion would depend on:-

1. Carbon black properties which depend on morphology & resultant rheology.
2. Formulation/s adopted
3. Hardware

Oil absorption needs of carbon black are usually higher than other pigments and fillers. Also the grades tend to be more application specific, as compared to other pigments and fillers.

Based on this, formulation should optimize quality and cost and no where is this more critical, than in black master batches and compounds. As the shear needed for effective dispersion is both high and controlled, this is still a bit of an art along with science which has advanced rapidly.

Generally speaking size reduction + Carbon Black wetting by carrier, optimum mixing time, agglomerate size and understanding stress requirements of each grade (thresh hold stress i.e. below which no dispersion will occur) are important parameters for customers, providing the service of Black dispersion i.e. master batch and compound producers.

The severest case of providing black dispersions is for the fiber industry and even for PP fiber, excellent wetting in which each Carbon Black particle is coated with the carrier to get effective dispersion is very important.

Stabilization to prevent uncontrolled and undesirable flocculation is also equally important. Thus optimum selection of a dispersion aid, which ensures individual particles are kept apart, so as to be fully coated with the carrier, becomes important. Even the most common, wax, has to be selected suitably for each application.

Today adsorbent additives are also available, which help in fine tuning dispersion quality in order to INCREASE the Carbon Black loading. The dispersion provider must fine tune his formulation with respect to carrier, Wax, and specialty dispersion aid in order to arrive at a techno commercial offering for the intended application. This is the KEY.

Decrease in FPV indicates a good offering for the PP fiber industry. PPHP Coloration by master batches is very important as the polymer can not be dyed. Also for PP fiber master batches, incorporation of suitable antioxidants in the master batch are essential for polymer stability.

Even in electrically conductive plastics, apart from RIGHT Carbon Black selection and % loading, dispersion is very important. Reduction in mechanical properties can be avoided by substantially improved interfacial bonding. This is also important when fillers are used in Black M.B. Formulation to reduce cost, in which fillers type (CaCo₃ or Talc) grade and % need to be optimized.

Specifically targeted Carbon Black grades need to be supported by optimum formulation and effective hardware to achieve results in the application intended. Combination of technology and experience (which is more of an art) in production of master batches and compounds is essential.

This write up is intended to serve a bit, the service providers engaged in Black coloration of plastics and users of Carbon Black for specialty compounds. We in CCIL are always at your service to help you in meeting the needs of the plastics industry with respect to Carbon Black usage.

TECHNICAL DATA SHEET

SATIN BLACK C 22 P

C 22 P is a SECB family product designed for Master batch applications for thin films, drip laterals, FDY (Fully Drawn Yarn), Geotextiles, Geomembranes, Virgin HIPS Compounds and PP Luggage

Product Performance: C 22 P is an ultra clean product having excellent balance of properties to ensure effective dispersion and reduced mesh blockages and tailored for above end usage segments.

Sl. No	Characteristics	Unit	Test Method	Standard C 22 P
1	Mean Particle Size	nm		22
2	Tint Strength	%	ASTM D 3265	Min 116
3	DBP Absorption No.	ml/100g	ASTM D 2414	109±5
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<30.0
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
6	B.E.T. Surface Area (N2SA)	M2/g	ASTM D 6556	115±5
7	Ash Content	%	ASTM D 1506	<0.2
8	pH Value		ASTM D 1512	8.0±1

Standard Packaging – 15/20/25 kg Paper Bag
MSDS- Material safety Data Sheets are available from our corporate office.

SATIN BLACK SB 509P

SB 509P is a SECB family product for UV protection with excellent dispersability in Plastics. Highly suitable for reprocess ABS, reprocess engineering Plastics and reprocess TPE.

Product Performance: SB 509P is an ultra clean product specially designed for where excellent weatherability & surface smoothness are required, along with improved jetness.

Sl. No	Characteristics	Unit	Test Method	Standard SB-509P
1	Ash content	%	ASTM D 1506	<0.2
2	B.E.T. Surface Area (NSA)	m2/g	ASTM D 6556	130±5
3	pH Value		ASTM D 1512	8.0±1
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<20.0
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
6	DBP Absorption No.	ml/100g	ASTM D 2414	120±5
7	Pour Density	kg/m3	ASTM D 1513	300±20
8	Tint Strength	%	ASTM D 3265	111±5

Standard Packaging – 15/20 kg Paper Bag
MSDS- Material safety Data Sheets are available from our corporate office.

SATIN BLACK C 33 P

C 33 P is a SECB family product for Master batch applications for Films, pipes LOY, monofilaments, polyolefin injection moulding, blow moulding, sheet extrusion, mulch films & Raffia and reprocess PP & HIPS.

Product Performance: Techno commercial product having needed balance of properties for cost effectiveness. A 45% loaded Masterbatch is ideal, Particularly for coarse PP Yarn application.

S. No	Characteristics	Unit	Test Method	Standard C 33 P
1	Mean Particle Size	nm		30
2	Tint Strength	%	ASTM D 3265	104±5
3	DBP Absorption No.	ml/100g	ASTM D 2414	97±5
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<30.0
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
6	B.E.T. Surface Area (N2SA)	M2/g	ASTM D 6556	80±5
7	Ash Content	%	ASTM D 1506	<0.2
8	pH Value		ASTM D 1512	8.0±1

Standard Packaging – 15/20/25 kg Paper Bag
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SATIN BLACK C 66 P

C 66 P is a SECB family product designed for Masterbatches for polyolefin thick films, Pipe & Injection Moulding applications. Useful for PP compounds also.

Product Performance: Product Performance: C 66 P is a clean product specially designed for pipes & injection moulding applications and also used in synthetic paint application. This is a easy to disperse black and Its morphology enables higher loadings in master batches lowering formulation costs. Based on formulations, recommended loadings are in the range of 52-57%.

Typical Applications: Plastic Masterbatch, PP Compounds & Synthetic Paint.

S. No	Characteristics	Unit	Test Method	Standard C 66 P
1	Mean Particle Size	nm		55
2	Tint Strength	%	ASTM D 3265	58±5
3	DBP Absorption No.	ml/100g	ASTM D 2414	83±5
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<60.0
5	B.E.T. Surface Area (N2SA)	M2/g	ASTM D 6556	35±5
6	pH Value		ASTM D 1512	8.0±1

Standard Packaging – 15/20/25 kg Paper Bag
MSDS- Material safety Data Sheets are available from our corporate office.

TECHNICAL DATA SHEET

SATIN BLACK C 76 P

C 76 P is a SECB family product designed for Plastic Masterbatches which need either very high loadings of Carbon Black or high loadings of Carbon Black + Filler (CaCO₃/Talc).

Product Performance: C 76 P is a clean product specially designed for above application and also used in ink application. This is an easy to disperse black and its morphology enables very high loading in master batches lowering formulation costs. Dosing of 60±3% is possible based on formulation.

Typical Applications: Plastic Masterbatch, Filled PP Compounds & Synthetic Paint.

Sl. No	Characteristics	Unit	Test Method	Standard C 76 P
1	Mean Particle Size	nm		75
2	Tint Strength	%	ASTM D 3265	50±5
3	DBP Absorption No.	ml/100g	ASTM D 2414	64±5
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<60.0
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	<5.0
6	B.E.T. Surface Area (N ₂ SA)	M ² /g	ASTM D 6556	29±5
7	pH Value		ASTM D 1512	8.0±1

Standard Packaging - 15/20/25 kg Paper Bag

MSDS- Material safety Data Sheets are available from our corporate office.

SATIN BLACK C 32 P

C 32P is a SECB family product specially designed for application of spun bonded PP non woven for ≥8 dpf non woven fabric and the M.B. Producer can suitably tailor his formulation.

Product Performance: C 32P is low structure carbon black which provides good flow characteristics and dispensability for above applications..

S. No	Characteristics	Unit	Test Method	Standard C 32P
1	Mean Particle Size	nm		30
2	Tint Strength	%	ASTM D 3265	Min 110
3	DBP Absorption No.	ml/100g	ASTM D 2414	72±5
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<30
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
6	B.E.T. Surface Area (N ₂ SA)	m ² /g	ASTM D 6556	78±5
7	Ash content	%	ASTM D 1506	<0.2
8	pH Value		ASTM D 1512	8.0±1

SATIN BLACK SB 712P

SB 712P is a SECB family product for Master batches application for Polypropylene Fiber and Filament.

Product Performance: SB 712P is clean product.

Typical Applications: Master batches Polypropylene fiber and filament.

S. No	Characteristics	Unit	Test Method	Standard SB 711P
1	Ash content	%	ASTM D 1506	<0.2
2	B.E.T. Surface Area (NSA)	m ² /g	ASTM D 6556	118±5
3	Heat loss	%	ASTM D 1509	<1.0
4	Iodine Number	mg/g	ASTM D 1510	115±5
5	pH Value		ASTM D 1512	8.0±1
6	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<20
7	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
8	DBP Absorption No.	ml/100g	ASTM D 2414	120±5
9	Pour Density	kg/m ³	ASTM D 1513	340±20
10	Tint Strength	%	ASTM D 3265	120±5

Standard Packaging - 15/20/25 kg Paper Bag

MSDS- Material safety Data Sheets are available from our corporate office.

SATIN BLACK SB 511 P

SB 511 P is a SECB family product for UV protection with excellent dispersability in ABS, PA & PC/ABS. This product is also suitable for maintaining high jetness & low viscosity of liquid inks.

Product Performance: SB 511 P is an ultra clean product specially designed for where excellent weatherability & surface smoothness are required along with high jetness.

Typical Applications: Automotive, Premium Luggage, Musical Instruments, Helmets, Bobbins, Telephone Casing, Household Appliances, TPE Applications e.g. soft grip, inks and Coatings.

S. No	Characteristics	Unit	Test Method	Standard SB 511 P
1	Ash content	%	ASTM D 1506	<0.2
2	B.E.T. Surface Area (N ₂ SA)	m ² /g	ASTM D 6556	155±5
3	pH Value		ASTM D 1512	7.5±1
4	Sieve Residue - 325 mesh	ppm	ASTM D 1514	<20
5	Sieve Residue - 35 mesh	ppm	ASTM D 1514	NIL
6	DBP Absorption No.	ml/100g	ASTM D 2414	70±5
7	Pour Density	kg/m ³	ASTM D 1513	430±20
8	Tint Strength	%	ASTM D 3265	130±5

Standard Packaging - 20/25 kg Paper Bag

MSDS- Material safety Data Sheets are available from our corporate office.

VISSION

TO BE AN INNOVATIVE SOLUTIONS PROVIDER TO THE VIRGIN & RECYCLED PLASTICS INDUSTRY.

GEOMEMBRANES & GEOTEXTILES :

These are an important segment of polymers & particularly black Masterbatches. However their applications are many times not fully understood. We give below the same.

1. APPLICATIONS OF GEOMEMBRANES:

1. As liners for portable water.
2. As liners for reserve water. (eg. Safe shutdown of Nuclear facilities)
3. As liners for waste liquids. (eg. Sewage sludge).
4. Liners for radio active or hazardous waste liquid.
5. As liners for secondary containment of underground storage tanks.
6. As liners for solar ponds.
7. As liners for brine solutions.
8. As liners for agriculture industry.
9. As liners for aquiculture industry.
10. As liners for golf course water holes & sand bunkers.
11. As liners for all kinds of decorative & architectural ponds.
12. As liners for water conveyance canals.
13. As liners for various waste conveyance canals.
14. As liners for primary, secondary and/or tertiary solid waste landfills & waste piles.
15. As liners for heap leach pads.
16. As covers (cap) for solid waste landfills.
17. As covers for aerobic & anaerobic manure digesters in agriculture industry.
18. As covers for power plant coal ash.
19. As liners for vertical walls : single/double with leak detection.
20. As cut offs within zoned earth dams for seepage control.
21. As linings for emergency spillways.
22. As water proofing liners with in tunnel & pipelines.
23. As water proof facing of earth & rockfill dams.
24. As water proof facing for roller compacted concrete dams.
25. As a water proof facing for masonry & concrete dams.
26. Within coffer dams for seepage control.
27. As floating reservoirs for seepage control.
28. As floating reservoir covers for preventing pollutions.
29. To contain & transport liquids in trucks.
30. To contain & transport water & other liquids in the ocean.
31. As a barrier to odors from landfill.
32. As a barrier to vapours (eg Hydrocarbon etc).
33. To control expensive soils.

1. APPLICATIONS OF GEOTEXTILES:

1. Roadways separations.
2. Sub surface drainage.
3. Roadways stabilization.
4. Permanent erosion control.
5. Temporary silt fence.
6. Paving fabric.

FUNDAMENTALS OF INNOVATION

- ↻ Innovation is not a functional activity. It is a business activity and we need every component of business – Sales, marketing, manufacturing, QC and Finance a piece of it.
- ↻ Innovation and technology development are interlinked. Roughly 60% of economic growth globally can be attributed to technology development.
- ↻ Technology development should be like rowing exercise and not a relay race.
- ↻ Innovation requires finding the needle in hay stack and finding it fast.
- ↻ Business innovations basically require use of both the hands. With one hand we stir technology and with the other hand we stir market.
- ↻ Most innovators have the habit of dreaming out loud.
- ↻ Innovation needs firework of ideas and network for cultivation to realization.
- ↻ There is no innovation which is more important for the world than the development of young minds.

According to Lord Todd president of the Royal Society London development of Polymerization is perhaps the biggest thing chemistry has done, where it has had the biggest impact on every day life.





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