Equity Research

December 31, 2021
BSE Sensex: 57794

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Initiating coverage

Specialty Chemicals

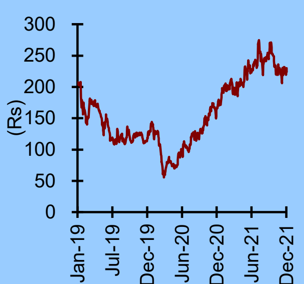
Target price Rs300

Shareholding pattern

	Mar '21	Jun '21	Sep '21
Promoters	53.6	55.7	50.9
Institutional investors	9.8	8.6	16.6
MFs and others	1.5	1.5	3.6
Insurance	0.0	0.5	1.0
FIIs	8.3	6.6	12.0
Others	36.6	35.7	32.5

Source: NSE

Price chart



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INDIA

Phillips Carbon Black

BUY

Recalibrated + re-innovated + structural tailwinds **Rs246**

We initiate coverage on PCBL with a BUY rating and target price of Rs300, valuing the stock at 12x FY24E PE. PCBL has recalibrated after challenging times till FY14. It is strengthening its business model; re-innovated with an emphasis on R&D, and is seeing structural tailwind from reduced China concern. PCBL is adding greenfield capacity after a decade, which shows growing management confidence in the business. It has introduced specialty grade and is expanding into new high-performance carbon blacks used in energy storage, improving resistance quality and investing in greener process. We forecast PCBL's EBITDA and net profit to grow at a CAGR of 13.9% and 14.5% over FY21-24E. The stock is trading at reasonable valuation of 9.9x FY24E PE and FCFF yield of 5.6%.

- **Recalibrated: Bought process efficiency.** Intense competition from Chinese manufacturers has put pressure on PCBL to re-evaluate each facet of business, including product portfolio, manufacturing efficiency, raw material sourcing, currency exposure and addressable market.

  1) PCBL has adopted three-pronged strategies for process efficiency: 1) Comprehensive management system, 2) higher process knowledge and 3) increased role of science in all activities. This approach is focused at doing more with less and enhancing the quality in a continuous way. This has resulted in improved yield, energy efficiency, better quality standards and lower maintenance expenditure.

  2) PCBL's operating cost/kg has remained under control despite significant investment in R&D, higher repair & maintenance for process improvement and lower utilisation of specialty carbon black as it is still in ramp-up stage.

  3) PCBL had two issues - speculation on oil prices and currency exposure. The company used to keep excess inventory to benefit from rising oil prices; however, higher inventory has hurt performance more when oil prices dipped. It has taken a cautious call to keep minimal feedstock inventory (no speculation on oil prices) required by business and has also increased domestic sourcing.

- **Re-innovated: Investment in R&D.** PCBL has changed its business model with investment in R&D across products and processes development. This has helped the company offer customised solutions and products and has entered specialty carbon black segment. It has strong plans for future wherein it aims to produce new high-performance carbon black products used in energy storage, improving resistance quality in rubber and investing in greener manufacturing process of carbon black.

  R&D has been the key reason behind not only significantly improving profitability, but also sustaining it at higher levels. We would closely watch new product development, and success of these products will be key for shareholders' wealth creation.

Market Cap	Rs46.4bn/US$622mn
Reuters/Bloomberg	PHIL.BO/PHCB IN
Shares Outstanding (mn)	188.7
52-week Range (Rs)	275/166
Free Float (%)	49.1
FII (%)	12.0
Daily Volume (US$/'000)	5,587
Absolute Return 3m (%)	(8.0)
Absolute Return 12m (%)	48.3
Sensex Return 3m (%)	(2.1)
Sensex Return 12m (%)	22.3

Year to Mar	FY21	FY22E	FY23E	FY24E
Revenue (Rs bn)	26.6	42.6	37.2	39.5
Rec. Net Income (Rs bn)	3.1	4.7	4.0	4.7
EPS (Rs)	18.2	24.9	21.0	25.0
% Chg YoY	9.2	36.4	(15.4)	18.7
P/E (x)	13.5	9.9	11.7	9.9
CEPS (Rs)	24.6	31.2	29.9	34.5
EV/E (x)	8.8	6.3	7.3	6.2
Dividend Yield (%)	2.8	3.5	3.0	4.1
Post-tax RoCE (%)	13.4	17.0	12.7	14.0
RoE (%)	17.2	20.4	14.3	15.5

- **Structural tailwind: Reducing China concern. 1)** Chinese tyre production has been on a declining trend in the past few years after a huge jump in CY13 and CY14. This is probably due to slowdown in exports market with key geographies imposing anti-dumping duty. This has boosted production of tyres in non-Chinese markets which benefited India carbon black producers with increased off-take in domestic and exports market.

  2) China is becoming relatively stringent on implementation of pollution norms. In fact, it has started shifting chemical plants out of city limits to SEZs, and encouraging investments in latest and clean technology which has increased the cost of manufacturing and capital employed.

  3) Coal prices increased significantly and this drove higher prices for coal chemical including carbon black oil (CBO). Chinese carbon black producers, who enjoyed significant advantage on feedstock from lower CBO compared to fuel oil prices, have suddenly vanished. In the past, Chinese carbon black producers flooded products at very low prices on feedstock arbitrage which has suddenly closed, providing a level-playing field in exports market for manufacturers from other regions.

- **Expansion plans: Greenfield expansion to step-up capacity.** Capex investment for next 2-3 years is seen at Rs13-14bn, of which Rs6.5bn will for greenfield Chennai rubber carbon black (150k mtpa capacity) plant and Rs1.5bn toward 25MW power plant in Chennai. Nearly Rs3.2bn worth of capex is seen for specialty capacity addition in Mundra, and the company will add 14MW of power with investment of Rs0.8bn. R&D investment could be Rs0.5bn and maintenance capex Rs0.5bn pa. Greenfield expansion provides visibility for growth in rubber and specialty carbon black. Power plant addition in existing facility would likely boost EBITDA.

- **Why buy commodity chemical business which has very volatile history?** The counter arguments for BUY on PCBL are: 1) Commodity nature of business and 2) volatility in earnings.

  As discussed earlier, the volatility in carbon black spreads could be significantly attributed to feedstock advantage enjoyed by Chinese manufacturers which looks to be behind for good.

  Carbon black is a bulk commodity, no denying. However, demand dynamics are better and less volatile. Tyre demand is relatively stable due to higher contribution from replacement market and is unlikely to be disrupted by EV penetration. Specialty carbon black demand is likely to benefit from rise in newer super conductive application (including EV), while coating and plastics have secure demand growth.

  A carbon black company would look less attractive on revenue growth *vs* other Indian chemical companies; however, its FCF generation, and return ratios would be healthy. This would show up in rising payouts and dividend yields. The valuation provides comfort and huge margin of safety.

  We are generally positive on alternatives to coal chemicals - carbon black and PVC. These products are manufactured in China using coal route and non-Chinese manufacturers use petroleum route. Coal generates huge pollution, and Chinese government's efforts to reduce pollution means these industries may see continued adverse regulatory impact. On the other hand, structurally, crude oil prices may remain under pressure from EV penetration.

- **Why 12x PE multiple?** Global peers Cabot Corp, Orion and Black Cat median PE multiple is 8.8x CY23E EPS. However, Chinese producer Black Cat is trading at 11x PE. The growth in Cabot and Orion would be limited due to no major capex therefore lower multiples. Capacity addition is majorly done by Indian and Chinese producers; thus they would outperform on EPS growth in medium term. We have assigned 12x PE for PCBL, 10% premium over Black Cat, as near term growth would be strong for PCBL from greenfield capex which is not completely captured in FY24E EPS.

- **Key downside risks: 1)** Removal of anti-dumping duty on Chinese tyres into US, Europe and India which may slowdown demand for carbon black in regional market; **2)** Drop in coal chemical prices including carbon black oil. Chinese have disadvantage of feedstock on rise in coal prices, and scarcity of coal chemicals; **3)** Rise in crude oil price could increase input cost for PCBL and therefore, impact margins; **4)** New capacity addition in India remains strong – PCBL is adding greenfiled facility and Epsilon wishes to expand carbon black capacity to >300K mtpa (from 115k mtpa); **5)** Lower-than-expected success in specialty carbon black and exports market; and **6)** Silica significantly replacing carbon black in tyre reinforcement.

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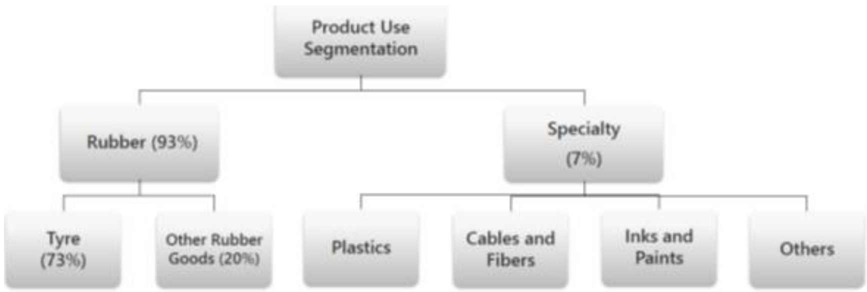
About carbon black

Carbon black is a powdered form of carbon that is used to create the desired physical, electrical and optical qualities of various materials. It is produced by incomplete combustion of heavy petroleum products / coal chemical such as coal tar, FCC tar or ethylene cracking tar. Carbon black products are primarily used as consumables and additives in the reinforcement of rubber polymers and for production of polymers, printing inks and coatings (specialty carbon black).

Chart 1: Rubber is the largest application for carbon black



Source: Company data

Carbon black had US$15.5bn global market in CY20 and is expected to grow at CAGR of 5.15% over CY21-26 (Mordon Intelligence). China contributes >40% of global carbon black production, and is the largest exporter. China's dominance is supported by: **1)** It is globally the largest producer of tyres (which is biggest market for carbon black); **2)** with ~30% global production capacity, China is the largest producer of plastics; and **3)** benefits from cheap availability of feedstock (carbon black oil, a coal chemical, from blast-furnace based steel production).

Carbon black is a fairly consolidated market globally with 60% capacity including top 10 players out of 17.5mn mtpa global capacity. Largest player is Cabot Corporation, US with market share of 13.3%; and two players from India – Birla Carbon (11.8%, second largest) and PCBL (3.4%, seventh). Though China has >40% market share, it has only three players in top 10 with total share of 11.4%. This implies carbon black market within China is fragmented with top 3 players having only 28.6% market share, and long tail. This is also implied from the fact that the third largest Chinese manufacturer has only 400K mtpa capacity (2.3% of global market share).

Table 1: Carbon black market is highly consolidated with 60% capacity among top 10 players…

Company	Country	Capacity (mtpa)	Market share (%)
Cabot Corporation	USA	2.33	13.3
Birla Carbon	India	2.06	11.8
Orion Carbon	Germany	1.26	7.2
Black Cat	China	1.15	6.6
Tokai Carbon\	Japan	0.94	5.4
CSRC	Taiwan	0.79	4.5
PCBL	India	0.60	3.4
Omsk	Russia	0.51	2.9
An Lun Chemical	China	0.45	2.6
Longxing Chemical	China	0.40	2.3
Top 10		**10.49**	**59.9**
Industry capacity		**17.50**	**100.0**

Source: Company data

Table 2: …however, China carbon black market is fragmented

Company	Capacity (mtpa)
Total capacity	17.50
China share (%)	*40.0*
China capacity (mtpa)	7.00
Capacity with top 3	2.00
Top 3 as % of total China capacity	***28.6***

Source: Company data

Carbon black application can be broadly bucketed into two categories: **1)** application into rubbers, and **2)** specialty carbon black used for coatings, polymers, printings and specialty spaces such as batteries. Reinforcement in tyres is the largest application for carbon black (~73% of total capacity). The enhancement in rubber properties is a function of the major physicochemical properties of carbon black, covering particle size, structure, aggregate distribution and surface characteristics.

Table 3: Carbon black uses in rubber

Rubber carbon blacks	
Tyres	**Mechanical rubber goods**
Passenger cars	Tubes and hoses
Light trucks	Conveyor belts
Medium trucks	Extruded profiles
Buses	Molded products
Motorcycles	Seals
Agriculture	Gaskets
Industrial	Anti-vibration engine mounts
Mining	Wiper blades
Construction	Rubber flooring
Aviation	

Source: Orion

Table 4: Carbon black uses as pigments and specialties

Specialty Chemicals			
Coating systems	**Polymers**	**Printing systems**	**Specialty applications**
Automotive	Pipes for gas, water and chemicals	Flexographic and gravure printing	Batteries
Industrial	Synthetic fibers for textiles & others	Coldset printing inks	Ceramics
Decorative	Adhesives and sealants	Heatset and sheetfed printing inks	Derussol
	Semi-conductive compounds	Toner for laser printers	Foundry
	Cable jacketing	Inkjet inks	Graphite molded parts
	Engineered polymers	Screen inks	Non-woven material
	Films for food packaging		
	Conductive and antistatic modification		

Source: Orion

Demand analysis for rubber carbon black

Per IRSG (International Rubber Study Group), the global tyre volume was 16.8mn mt in CY19; and will achieve 2.75bn units by CY24 from 2.36bn units in CY19 (CAGR of 3.1% over CY19-24). As per PRnewswire, China made 648mn units of tyres in CY18. Industry reports suggest China will produce 704mn tyre units in CY25, including 527mn passenger radial tyres, 148mn truck/bus radial tyres, 29mn bias truck tyres, 20,000 extra-large industrial tyres, 12mn agricultural tyres, and 54,000 aircraft tyres. In addition, China will produce 120.7mn motorcycle tyres and 420mn bicycle tyres in CY25 as per Research & Markets.

China has established integrated tyre industry except natural rubber which is imported. There are a large number of manufacturers of other raw materials of tyres such as synthetic rubber, steel cord and carbon black in China. Chinese enterprises are also competitive in producing tyre moulds, manufacturing machines, etc. Global tyre manufacturers have entered China not only for global production base but also base for strong underlying market. Over half of Chinese domestic tyre market is dominated by foreign brands and has been gaining market share in OEMs.

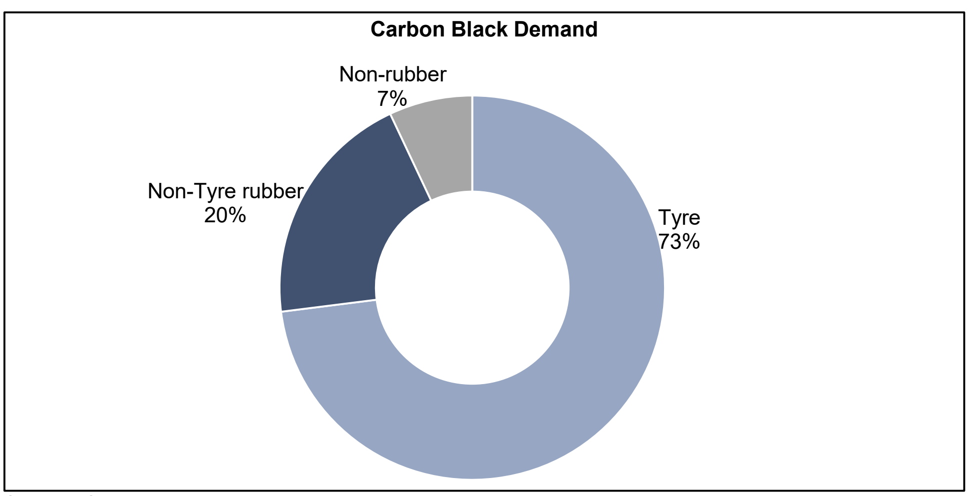
China's tyre exports was 287mn units in CY18, and has been significantly impacted by anti-dumping and anti-subsidy duties imposed by European Commission and the US Department of Commerce on Chinese truck tyres. These markets constituted >40% of Chinese tyre exports.

Two key trends relevant for our analysis of carbon black market in India – **1)** China tyre market is consolidating and branded players are becoming stronger. This should drive consolidation in fragmented carbon black markets forcing smaller players to either shut shop or merge with large entities creating more level-playing field; **2)** volume pressure on tyre exports for China due to anti-dumping duties in major markets.

As per IMARC Group, Indian tyre market was 179mn in CY20 and is expected to jump to 211mn in CY26 (CAGR of 3%). India is the fourth largest market globally after China, Europe and US. India tyre industry is fairly consolidated market with top 10 brands accounting for 80% of the market. Competition from imported tyres (particularly China) has significantly reduced as the Director General of Foreign Trade (DGFT) placed tyre imports under the restricted category (against free category earlier), thus necessitating DGFT's permission for all tyre imports.

Rubber carbon black demand comes from **1)** tyre demand which indeed comes from replacement market and OEMs; and **2)** other rubber uses (manufactured rubber goods). Replacement tyre market dominates demand for rubber carbon black which means demand will be less volatile. Rubber carbon black demand from OEMs has been significantly impacted from slowdown in car sales (passenger vehicles is the largest category).

Chart 2: Carbon black category mix – rubber carbon black dominates with 93% share



Source: Company data

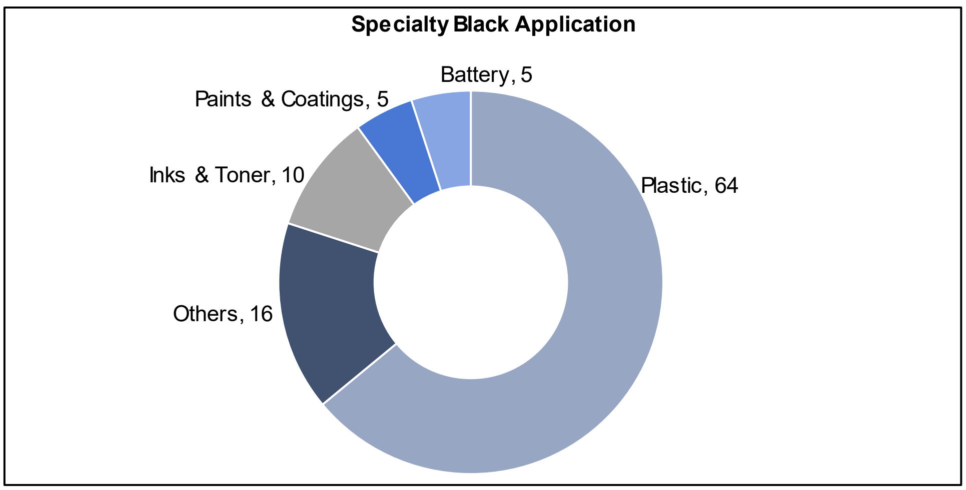
Demand analysis for specialty carbon black

As per CHEMANALYST, specialty carbon black demand was 2mn mt in CY20, and is expected to reach 3.2mn mt in CY30, an estimate growth of 5% CAGR. Specialty carbon black is used to overcome conductivity issues in lithium-ion batteries for electric vehicles owing to its better energy density and lightweight as compared to conventionally used compound nickel-cadmium. Specialty carbon black is also known as pigment black and is used to impart distinctive characteristics in specialised non-rubber end-user applications including plastics, printing inks and paints & coatings for pigmentation and imparting desired properties such as UV protection and conductivity.

Plastics industry is the largest end-user industry for specialty carbon black, where it is used to impart colour, improve thermal insulation and impart UV resistance to plastic products such as pipes, engineering plastics, cables and synthetic fibres. In automotive sector, specialty carbon black is used to provide aesthetic appeal to vehicles, improve durability of components and provide protection against corrosion.

We understand specialty carbon black is a consolidated industry with top 3 manufacturers – Cabot Corp, Birla Carbon and Orion Carbon holding ~60% global volume market share.

Chart 3: Specialty carbon black application dominated by plastics (%)



Source: Company data

Price trend for carbon black

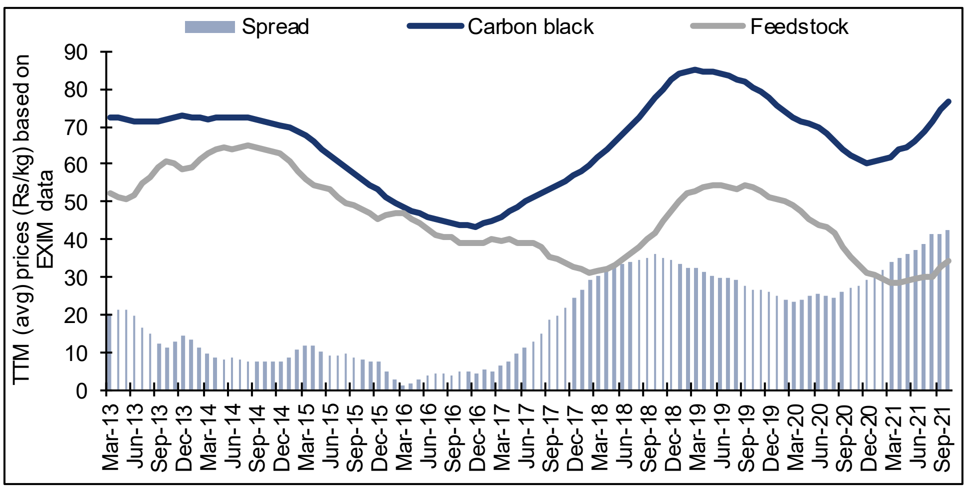
The data below has been taken from EXIM Trade published by the commerce ministry. Carbon black data is for exports, which should be the lowest price for Indian manufacturers as they have to compete with Chinese exports which are generally more competitive. We have used feedstock prices from import data of oil products of distillation of high temperature coal tar etc (which is proxy to CBFS, an input used by Indian carbon black manufacturers, in our view). The spreads working is simple subtracting of oil product import prices from carbon black export prices.

Export data is a good reflection of global spreads as in past domestic carbon black prices enjoyed protection from ADD which distorted the actual underlying spreads.

Carbon black spreads before FY18 were significantly lower for India producers despite anti-dumping duty due to **1)** higher input prices due to higher crude oil prices, which have since fallen significantly; **2)** carbon black prices have increased due to reduced competition from Chinese exports. China industry saw significant shake-up post crackdown from Chinese government in an effort to reduce pollution; and started shifting chemical plants to SEZs with increased investment for plant owners. During the process, we understand, some carbon black manufacturer shut shops in China; **3)** stricter regulatory implementation also led to increase in prices for feedstock for Chinese carbon black manufacturers who enjoyed lower feedstock prices in past. Lower carbon black oil price was on account of exponential rise in blast-furnace based steel plants which heavily churned coal tar as wastes; and **4)** higher coal prices.

We understand carbon black oil prices in comparison to high sulphur oil prices (which is used by PCBL) have increased, which has cut the competitive edge for Chinese manufacturers that they enjoyed previously.

Chart 4: Since FY18, spreads have been much better for India carbon black manufacturers, and we believe they would remain healthy in future as well



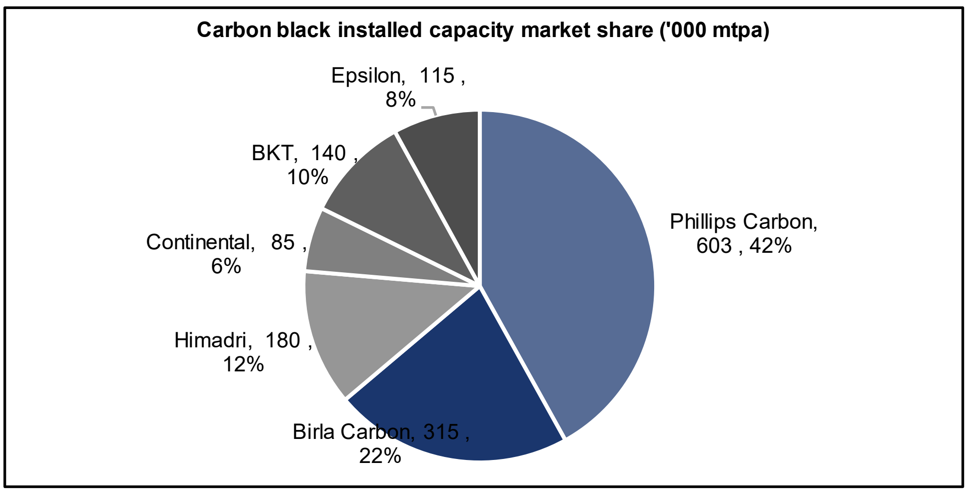
Source: I-Sec research, Commerce ministry

About PCBL

PCBL was established in 1960 in collaboration with Phillips Petroleum, a US oil company, with the objective to manufacture carbon black in India. It is part of the RP-Sanjiv Goenka Group, a Kolkata-based industrial group having presence across utilities, power, carbon black, IT-enabled services, consumer and retail, media and entertainment, sports, education, infrastructure and plantations. It has carbon black manufacturing capacity of 603k mtpa, and is globally the seventh largest and India's largest manufacturer by capacity. This also includes 72k mtpa capacity for manufacturing specialty grade carbon black. PCBL uses off-gases from carbon black facility to generate 84MW (capacity) power which it utilises for its own consumption, and surplus is sold in the market.

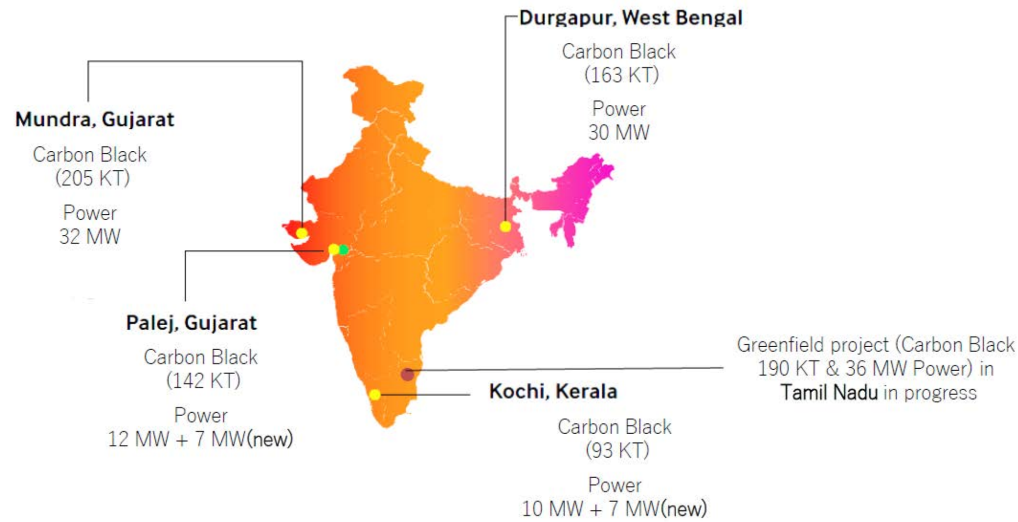
PCBL has >75 grades of carbon black including >40 grade in specialty which it started in 2015 from own R&D investments. It has also expanded exports footprints with long-term supply contracts in >45 countries. The company has four manufacturing facilities including one in east – Durgapur, West Bengal, two in west – Mundra and Palej, Gujarat and one in south – Kochi. It is in the process to commence greenfield project near Chennai, Tamil Nadu. It uses furnace process to manufacture carbon black, which is a dominant process globally as well. All its plants are zero liquid discharge plants.

Chart 5: PCBL's large share in India installed carbon black capacity



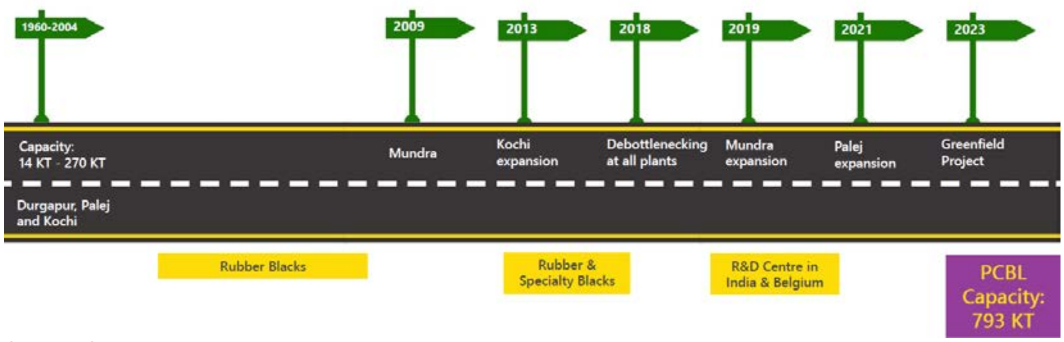
Source: Notch Consulting

Chart 6: PCBL has four plants operational; and it is in process to expand capacity with greenfield plant in Chennai



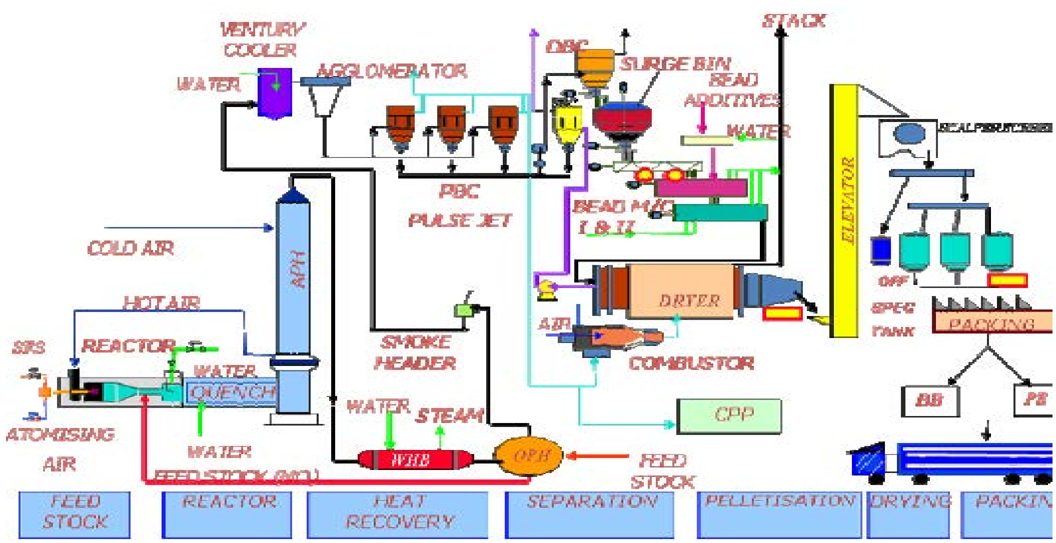
Source: Company data

Chart 7: Key milestone achieved by PCBL



Source: Company data

Chart 8: Carbon black manufacturing process



Source: Company data

PCBL has been working on increasing product categories to serve needs of various customers. Though the company has put efforts to add specialty products since FY15, we believe it has a long way to go in both rubber carbon black and specialty carbon black, particularly in conductive carbon black which is used in lithium ion-batteries.

Table 5: PCBL has expanded its products range since FY15, but it has a long way to go

Carbon blacks		
Tyre	**Other rubber goods**	**Specialty**
Passenger vehicle	Conveyor belts	FDA & food contact plastics
Truck and bus	Extrusions and profiles	Fibre
Off-the-road	Hoses and ducting	Wire and cables
Two-wheeler	Power transmission belts	Film
Three-wheeler	Moulded rubber goods	Engineering plastics
	Seals and gaskets	Pipe
		Printing inks
		Paint/coatings
		Battery

Source: Company data

PCBL's majority of revenue comes from carbon black, which contributed ~97% of revenue in FY20 and FY21. Power, which is manufactured from off-gases coming from carbon black manufacturing, contributed ~2.5% of revenue, while other operating income including export incentives and scrape sales was under 1% of revenue. The company has been driving sales in exports markets which contributed 26% of revenue in FY21.

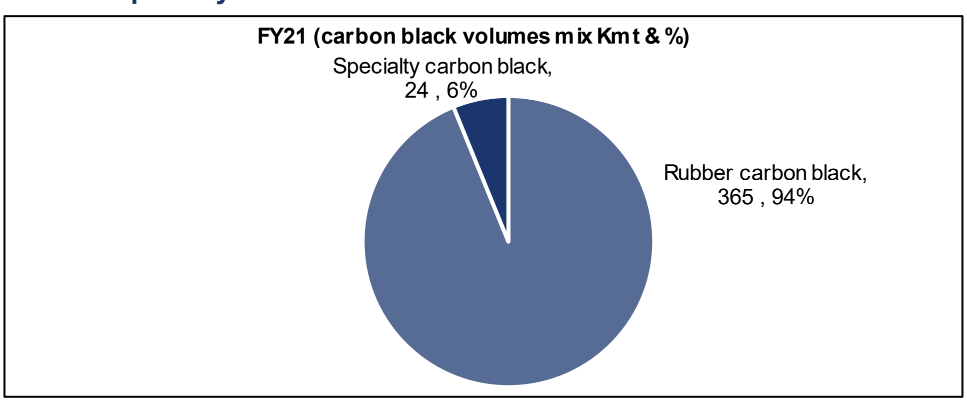
Table 6: Carbon black contributes ~97% of revenue for PCBL

	FY20		FY21	
Rs mn	**Sales**	**Mix (%)**	**Sales**	**Mix (%)**
Carbon black	31,356	96.7	25,867	97.3
Power	865	2.7	673	2.5
Others	215	0.7	56	0.2
Total	**32,435**		**26,595**	
Geographic				
India	23,703	73.6	19,756	74.4
Export	8,518	26.4	6,784	25.6
Total	**32,221**		**26,540**	

Source: Company data, I-Sec research

Within carbon black, rubber carbon black contributed 94% of volumes in FY21, while specialty carbon black was 6%, but growing at healthy pace.

Chart 9: Specialty carbon black contributed 6% of PCBL volumes



Source: Company data, I-Sec research

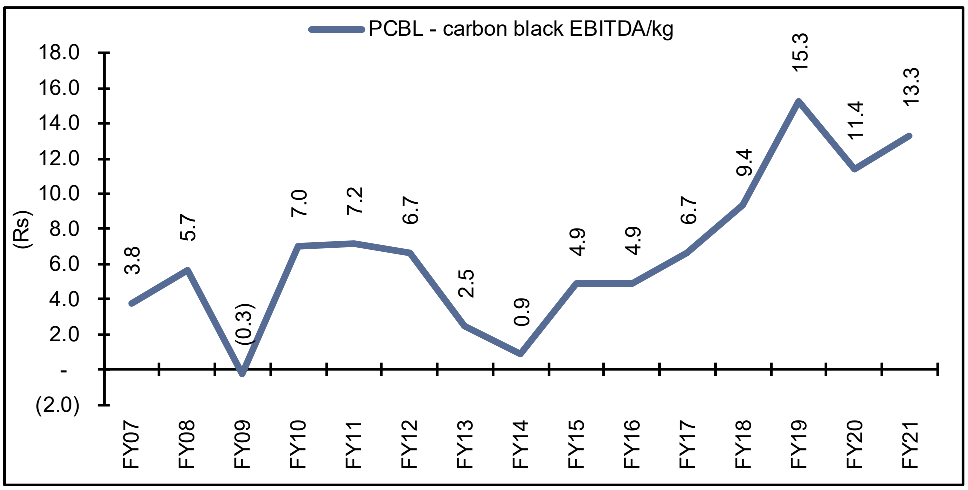
The journey so far…

PCBL went through difficult times till FY14 due to internal in-efficiencies, lack of innovation, heavily dependent on only rubber carbon black and exports were used to sell excess capacity (as a spot market). Also Chinese aggression in carbon black market put other carbon black manufacturers into challenging times.

PCBL since then has come a long way which we will discuss in detail in following sections, and invested in process improvement benchmarking best in the world in production, developed export market with strategic partnerships and expanded products into specialty carbon black. The company has strengthened its own R&D with two R&D centres in Palej, Gujarat and Ghislenghien, Belgium.

Further, Chinese carbon black manufacturers are impacted by **1)** Chinese government's initiatives to stricter implementation of pollution norms, and relocation of chemicals plants to SEZs and forced investment into latest technology. Fragmented China carbon black market saw closure of some small carbon black manufacturers thus reducing supply of carbon black; **2)** China also lost cheap feedstock advantage with crude prices correcting, and coal chemical prices rising; and **3)** slowdown for tyre manufacturers in China with the imposition of anti-dumping duty by US and Europe.

Chart 10: PCBL's journey in a chart



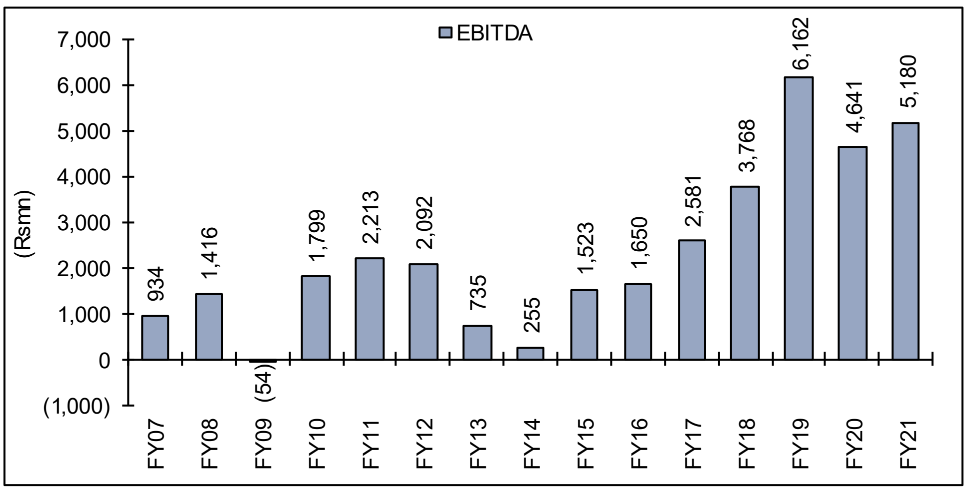
Source: Company data, I-Sec research

Recalibrated – process efficiency and expanded addressable market

Intense competition from Chinese manufacturers has put pressure on PCBL to re-evaluate each facet of business including product portfolio, manufacturing efficiency, raw material sourcing, currency exposure and addressable market. The company leveraged the *Competitive Intelligence Study* to identify opportunities for development, innovation, customer engagement, market driven research and intellectual property protection.

This has yielded commendable results for the company which helped PCBL to position among strongest player in carbon black industry. It also helped the company to structurally lift EBITDA/kg to more sustainable levels, and cashflow has become more predictable; nonetheless, it cannot completely escape cyclicality, but EBITDA swing will be much smaller in future, in our view.

Chart 11: PCBL's EBITDA has not fallen steeply in FY20 / FY21 despite low demand scenario



Source: Company data, I-Sec research

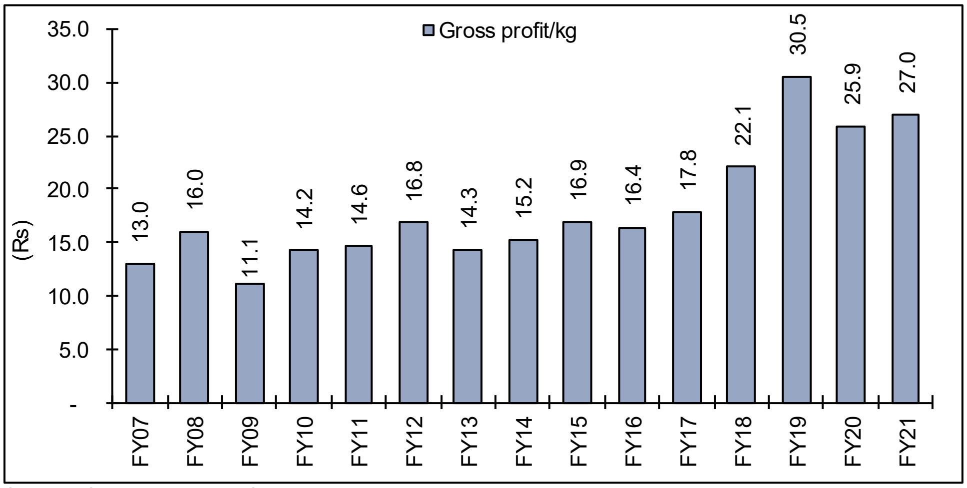
Company improved process efficiency

PCBL's gross profit/kg has consistently improved, and remained higher on multiple factors: **1)** Better spreads with reduction in competition from Chinese manufacturers, **2)** better mix with higher contribution of specialty carbon black; and **3)** improvement in efficiency. The spreads are partly dragged with higher contribution of exports *vs* domestic realisation which were protected from ADD (which was revoked in Jan'21). The spreads have sustained despite revoking ADD is good.

The company has adopted three-pronged strategies for process efficiency: **1)** Comprehensive management system, **2)** higher process knowledge and **3)** increased role of science in all activities. This approach is focused at doing more with less and enhancing the quality in a continuous way. This has resulted in improved yield, energy efficiency, better quality standards and lower maintenance expenditure.

The company has widened feedstock basket including anthracene (ATO), carbon black oil (CBO) and ethylene tar (ET) which significantly brought down dependence on expensive imported feedstock. Domestic feedstock has increased by 4x in FY20 alone. It also has worked extensively in reducing wastage during logistics, and process. We understand the company was able to achieve output ratio of 1:1.85 (feedstock) from 1:9 earlier which itself has added few percentage points to gross profit margins.

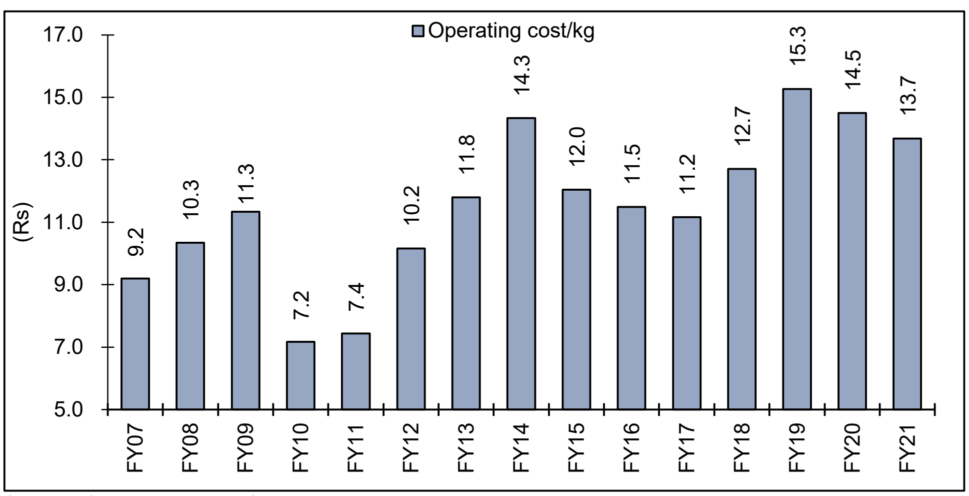
Chart 12: Gross profit/kg has seen consistent improvement on better spreads and investment in efficiencies



Source: Company data, I-Sec research

PCBL's operating cost/kg (for carbon black) has remained under control despite significant investment in R&D, higher repair & maintenance for process improvement, and lower utilisation of specialty carbon black as it is still in ramp-up stage. We expect operating cost/kg to further come down with increase in utilisation of existing plants, but commissioning of Chennai plant should partially increase cost in FY24 before it starts reducing again.

Chart 13: Operating cost/kg had lower inflation despite investment in R&D, and new capacity addition in specialty

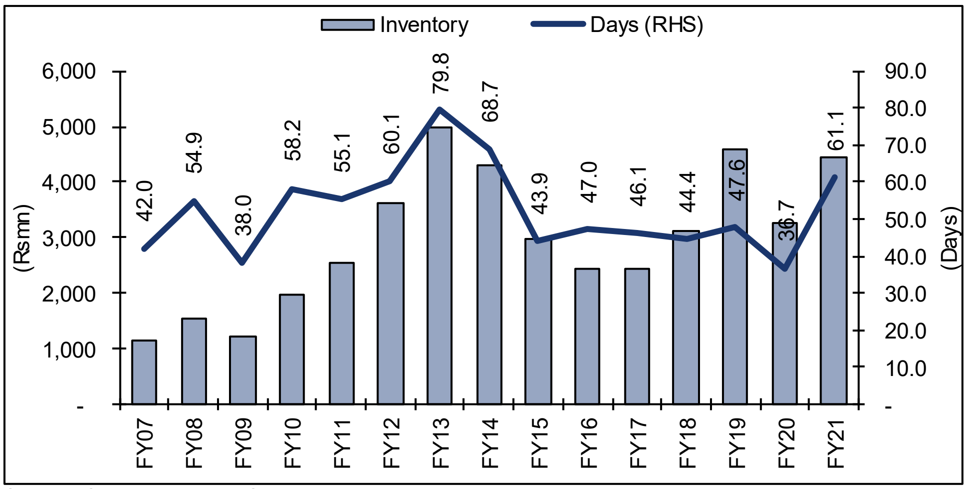


Source: Company data, I-Sec research

Strengthened business model – improved risk management on raw-material and currency

PCBL had two issues historically, which have been streamlined or improved to minimise the impact. The raw material was largely import-dependent earlier, and in rising oil prices scenario, the company used to keep excess inventory to benefit from inventory gains; however, higher inventory has hurt company performance more when oil prices dipped. The company has taken a cautious call to keep minimal feedstock inventory (no speculation on oil prices) required by business and has also increased domestic sourcing to reduce lead time and inventory days.

Chart 14: Company has significantly improved inventory days; reduced risk from feedstock volatility



Source: Company data, I-Sec research

The other issue was related to foreign currency fluctuation and hedging. PCBL had exposure to foreign exchange due to large import and improper hedging mechanism used in the past which has optically created volatility in margin. It has now taken policy decision to have no unhedged portion which has eliminated any foreign currency related volatility.

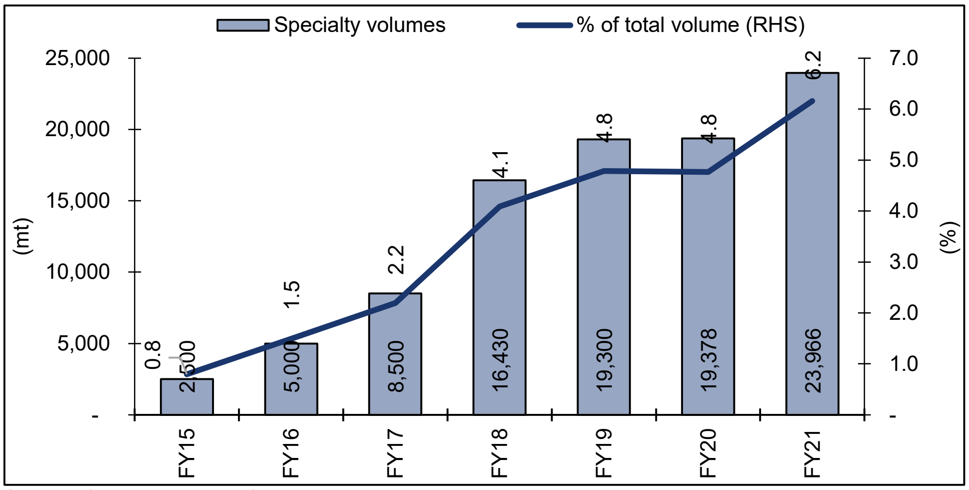
New product launches plugged portfolio gaps

PCBL has significantly invested in R&D for new product development to plug product portfolio gap compared to larger peers. In the past few years, it has introduced many products in rubber carbon black and also started / expanded specialty carbon black. This has increased addressable market for PCBL, and the company has started engaging with customers for higher level of customisation. Specialty carbon black has provided entry into higher profitable segment, and is helping to reduce dependence on auto industry (and cyclicality!). We understand the company still has product gaps compared to larger peers across portfolio; it is working to add more products in coming years.

Within specialty, it has been expanding portfolio of pigments space which finds use in plastics, ink and paints and coatings. It is also pushing more contract manufacturing kind of business within specialty where it is not only entering into strategic manufacturing arrangements but also market proprietary products. It is expanding niche offering, which is complex value-added and under-crowded market and requires multi-stage processes in carbon black and specialty carbon black.

These efforts started a few years back, and may take time to convert customers, and build partnerships. Specialty carbon black expansion may have been slower for PCBL (which is also partly impacted by covid), but the company is showing promising progress in new product launches, and we continue to keep faith in rising contribution for next few years. Example: USFDA approved food grade plastic pigments.

Chart 15: Specialty volume has grown to 6.2% of total volumes in seven years of launch



Source: Company data, I-Sec research

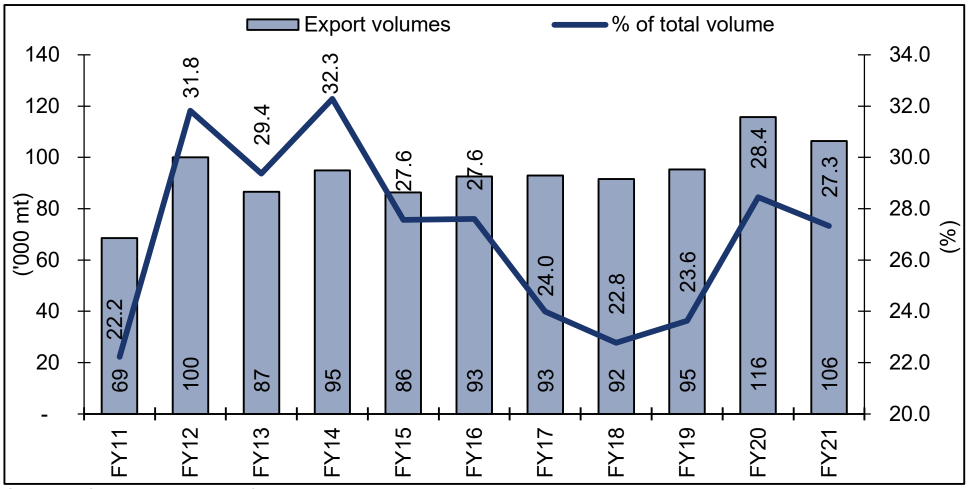
Export market business built on long-term contracts from spot sales earlier

PCBL's exports volume contribution is 27% of total volumes as of FY21 which had earlier reached 32% in FY14. Before FY15, export sales were aimed at selling excess manufacturing capacity, and mostly spot market driven by pricing. The company has since then completely re-orientated its exports business developing relationships / partnerships based sales with sales office and warehouse in international market. It has significantly reduced spot sales in exports market which was more like an opportunistic business.

Global peers such as Cabot Corp, Birla Carbon and Orion have manufacturing facilities spread across countries. PCBL does not wish to have manufacturing facility in international market, but has created virtual facilities wherein it has warehouses stocked up with products. It customises manufacturing in India which gives the company better control on operations. It exports carbon black to 45 countries with a significant focus on the Europe and US market.

Further, specialty has boosted export volumes wherein >50% of specialty sales are from the international market. Though specialty contributes only 6.2% of total sales, its contribution in exports was 11.3% in FY21, which was higher than specialty carbon black mix for industry.

Chart 16: Exports business focused at partnership, and specialty carbon black sales



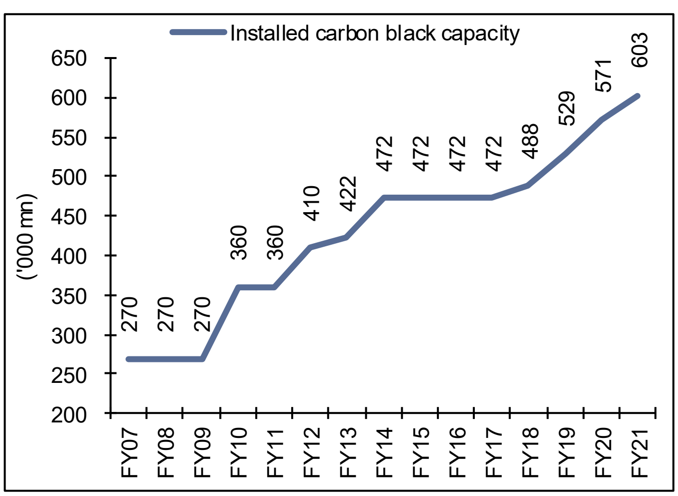
Source: Company data, I-Sec research

Capacity expansion through de-bottlenecking and brownfield expansion

Since FY14, PCBL has not expanded its carbon black capacity, instead its focus was to improve efficiency and profitability of existing plants. It started adding capacity from FY18, which again was mostly focused at brownfield expansion to drive better profitability. This has helped company in improving operating efficiency and has also improved its return ratios.

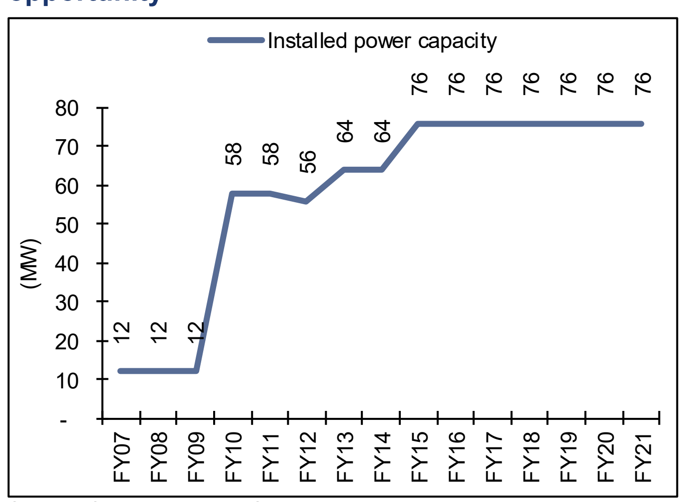
Further, the company has added 131kmtpa capacity since FY18; it has not equivalently invested in power plant to take advantage of increased off-gas emission from carbon black manufacturing. Historically, the company had 16MW of power capacity for every 100Kmtpa capacity of carbon black. We see this as an incremental opportunity for future which the company is looking to monetise.

Chart 17: PCBL has expanded carbon black capacity through debottlenecking and brownfield



Source: Company data, I-Sec research.

Chart 18: It has not invested proportionately in power plant to use off-gases which is an opportunity



Source: Company data, I-Sec research.

Re-innovated: Investment in R&D and specialty grades

PCBL has completely changed the business model with significant importance / investment in R&D across products and processes development. This has helped the company offer customised solutions and products and has entered specialty carbon black segment. The company has strong plans for future wherein it aims to produce new high-performance carbon black products used in energy storage, improve resistance quality in rubber and invest in greener manufacturing process of carbon black. It is also investing in composite products which should help the company significantly move up in the value chain.

R&D has been the key reason behind not only significantly improving profitability, but also sustaining it at higher levels. We would closely watch new product development, and success of these products will be key for disproportionate shareholders' wealth creation. The company has two R&D facilities in Palej, Gujarat and Ghislenghien, Belgium. It has a team of 40 scientists and technical professionals in R&D and process technology.

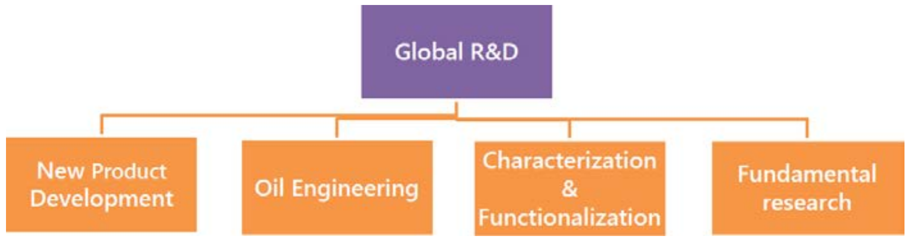
Focused on R&D with four key pillars

PCBL's R&D philosophy is based on four key pillars – **1)** new product development, **2)** studying oil engineering to improve feedstock, **3)** characterisation and functionalisation, and **4)** fundamental research. The company's R&D function begins by conducting continuous competitive intelligence study, product portfolio analysis, patent portfolio analyses to identify potential space for development and innovation, customer engagement and market-driven research.

- **New product development**: Company has been focused at expanding products in specialty including inks, coatings and plastics masterbatch segments. It also does customised rubber carbon black through development of novel carbon black and improving the existing products by adopting physical and chemical routes of modifications. It is modifying existing raw materials and products to diversify its application in nano-structured carbonaceous materials which is finding use in energy storage. We also understand the company has been working on composites using graphene, and other materials.
- **Oil engineering:** The company has been evaluating the nature of the CBFS based on carbon black to be produced and its impact on yields, quality, impurity level, process efficiency and within it parameters of environmental and regulatory norms. It has identified new vendors for balanced quality CBFS supply for specialty carbon black manufacturing and developed methods to lower impurities in CBFS.
- **Characterisation and functionalisation:** PCBL has been evaluating the existing carbon black manufacturing processes and technologies to improve process technology, product features and versatility, in order to produce cleaner carbon black. It has enhanced carbon black manufacturing process with improvement in reactor efficiency, productivity, yield and pellet quality.

- **Fundamental research:** It monitors and analyses industry trends and market dynamics including patents and competitive product analysis through effective analytical tools and molecular engineering approach.

Chart 19: Four pillars of R&D for PCBL



Source: Company data

R&D efforts resulted in strong business development in specialty grade

PCBL's efforts have allowed it to continuously add newer products in specialty carbon black which is expanding its product portfolio, and making it competitive in international market. It also helps in expanding addressable market with exposure in newer industry such as paints and coating including auto-coating and plastic masterbatches where demand volatility and competitive dynamics are much better than standard rubber carbon black.

Market is opening for energy storage with fast expanding EV footprint across the world. Cabot and Orion are heavily investing in new opportunities. We believe PCBL has the opportunity to work in emerging markets for energy storage.

Though the pick-up pace of specialty carbon black was slower than anticipated for PCBL, we believe the company has been aggressively expanded capacity. This gives us confidence that the company can drive higher revenue from specialty carbon in future.

Structural tailwind – reducing China concern

Carbon black industry has undergone a very challenging decade with Chinese manufacturers dominating the industry and also enjoyed advantage compared to India and other regional manufacturers. China had two advantages – **1)** sharp growth in tyre industry with China today accounting >40% of global tyre manufacturing which is largest end-use market for carbon black; and **2)** feedstock advantage from local availability and cheaply priced carbon black oil. Added to this, Chinese small-scale manufacturers enjoyed less stringent implementation of environmental norms. Chinese carbon black industry is highly fragmented and with regulations becoming stricter (implementation) and raw-material advantage significantly decreasing, we see structural carbon black industry repair for non-Chinese manufacturers.

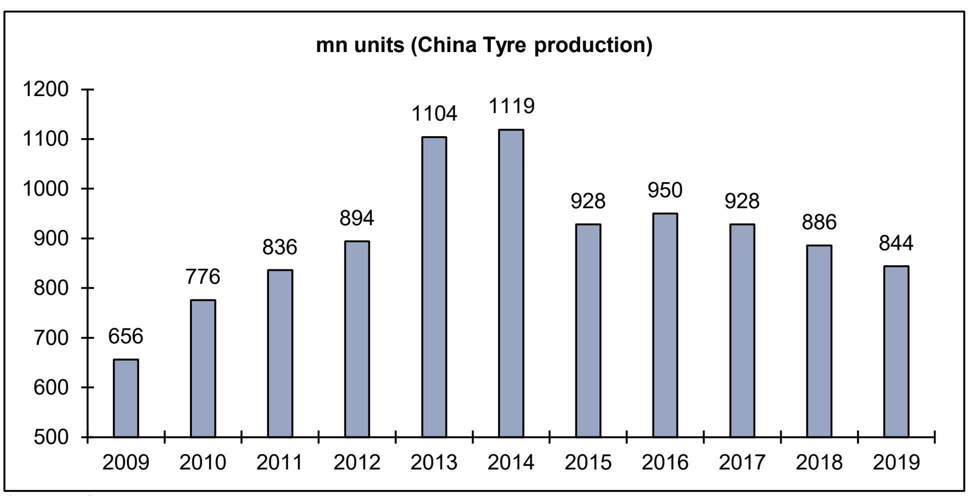
China tyre production has been falling which makes lesser case for aggressive carbon black industry

Chinese tyre production has seen a declining trend in the past few years after huge jump in CY13 and CY14. This is probably due to slowdown in exports market with key geographies imposing anti-dumping duty. **1)** US imposed anti-dumping duty on China tyres in 2015, and it extended the duty in 2021 which was the largest tyre exports market for Chinese manufacturers; **2)** in Oct'18, European Commission imposed anti-dumping duty on tyre imports from China; and **3)** India imposed anti-dumping duty on Chinese tyres import in Sep'17.

This has boosted production of tyres in non-Chinese markets which benefited India carbon black producers with increased off-take in domestic and exports market.

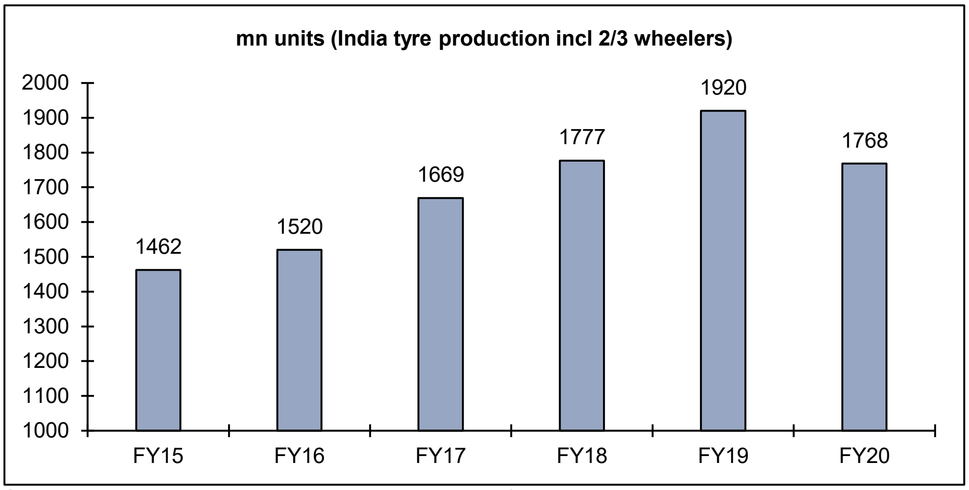
Cabot Corporation in earnings highlighted: '*I think our long view on China is unchanged here. In the short term, there is certainly some challenge in global logistics markets right now and so Chinese exporters of tires are challenged to find container availability at pretty scarce and pricing has gone up on international container shipment. So this may result in some on the margin shifting of tire production back to importing regions. So we may see a little bit of movement here between Chinese exporters in volumes that might be picked up in the importing region*.'

Chart 20: China tyre production has been dipping



Source: Statista

Chart 21: India tyre production is rising



Source: ATMA: Note: India tyre production includes 2/3-wheelers as well.

China stewardship on pollution control making many manufacturing units unviable

China is becoming relatively stringent on implementation of pollution norms. We understand that earlier China had higher tolerance for pollution which has completely changed in the past few years. In fact, it has started shifting chemical plants out of city limits to SEZs, and encouraging investments in latest and clean technology which has increased cost of manufacturing and capital employed.

We have collected certain anecdotes from global carbon black peers

1) Cabot Corporation (2020 annual report): '*The Chinese government has, from time to time, curtailed manufacturing operations, with little or no notice, in industrial regions out of growing concern over air quality. The timing and length of these curtailments are difficult to predict and, at times, are applied to manufacturing operations without regard to whether the operations being curtailed comply with environmental regulations in the area. Accordingly, our manufacturing operations in China have been subject to these curtailments in the past and may be in the future*.'

2) Orion Carbon (2020 annual report): '*In China and South Korea, our operations have been subject to increasingly strict air quality regulations in recent years. These regulation changes in China and South Korea in recent years have been complied with. Those to come may require additional capital and operating expenditures for specific equipment or technologies to control emissions, and we have projects underway to address the new requirements*.'

Cabot Corporation also indicated: '*The China national emissions trading program is currently only affecting the power sector and has yet to be expanded beyond that sector. We continue to monitor that program's implementation and expect it to apply to the entire carbon black industry in 2021 or 2022, with the existing pilots expected to continue to operate until the national program becomes effective.'*

Industry consolidation both in carbon black and tyre

China tyre market is highly fragmented (>500 manufacturers). In this evolving market, demand for products is diverse with various quality needs, hence, diverse range of producers. However, as the market matures, quality levels move up supported by higher income levels and consumers becoming more safety cautious. Today, China's domestic tyre market is flooded with multiple manufacturers including tier 1, tier 2 and many in big box stores catering various customer preference. It is expected that over time quality requirement would move up, and this generally leads to industry consolidation with better players (strong brands) becoming stronger.

Further, it has been seen as growth rate moderates, industry tends to consolidate as scale and efficiency become more important to earn good returns in a slower growth market. While China still has high growth rate, relative to developed market, it has come-off significantly from earlier double-digit growth.

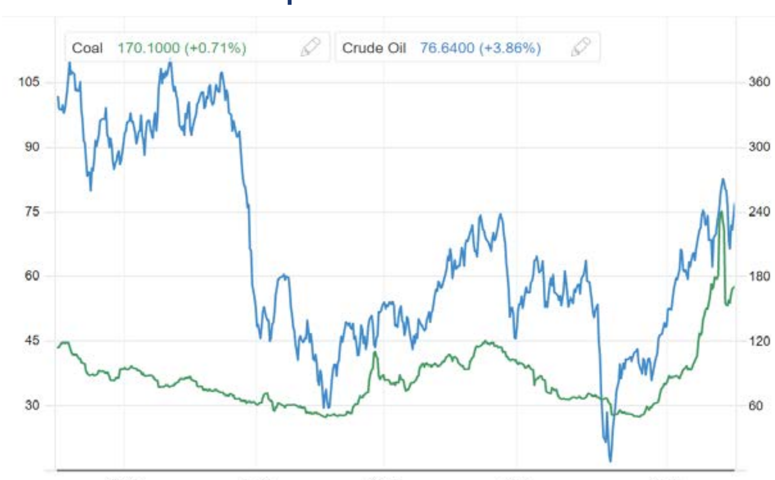
It is expected that consolidation in tyre industry would also force consolidation in carbon black market. Smaller and inefficient manufacturers would have to shut shop or will merge with large companies for access to better technology and product portfolio.

Chinese arbitrage in feedstock closed for now

Recently, coal prices increased significantly and this drove higher prices for coal chemical including carbon black oil. Chinese carbon black producers, who enjoyed significant advantage on feedstock from lower carbon black oil compared to fuel oil prices, have suddenly vanished. In the past, Chinese carbon black manufacturers flooded products at very low prices on feedstock arbitrage which has suddenly closed, providing a level-playing field in exports market for manufacturers from other regions.

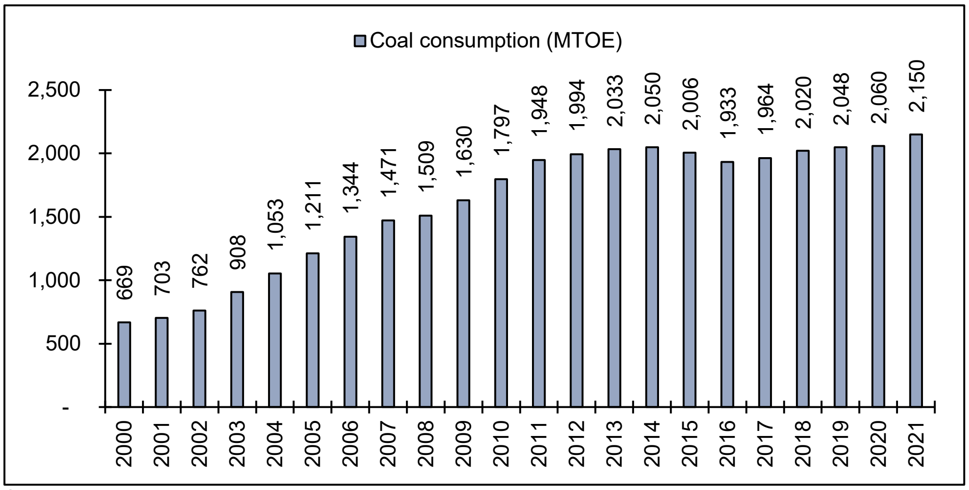
In the long term, it is expected that feedstock costs for Chinese carbon black manufacturers would remain high due to peak virgin steel production, and new capacity has higher share of electric-furnace based steel plant. This means incremental coal tar availability over time will become more scarce putting a floor on pricing.

Chart 22: Coal prices have seen sharp jump which has led to rise in prices for coal chemicals. Coal prices relative to crude oil have increased significantly



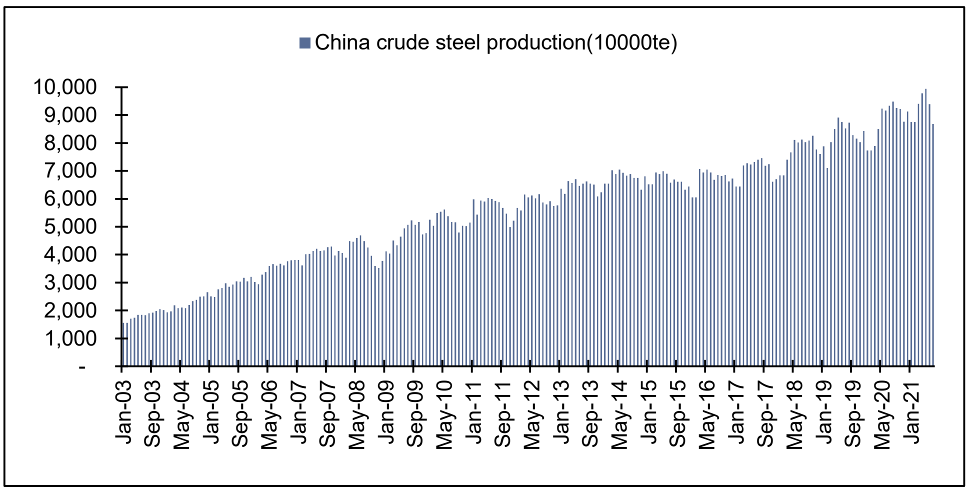
Source: Tradingeconomics.com

Chart 23: Coal consumption in China remains in tight range



Source: IEA

Chart 24: China's steel production has been growing supported by scrape. Virgin steel production (based on blast furnace) is likely to peak



Source: I-Sec research, Bloomberg

Limited carbon black capacity addition in developed market

In developed markets of Americas and Europe, it is expected that supply-demand fundamentals remain favourable for producers with steady recovery in tyre and automotive market, while no fresh carbon black capacity addition is expected in these regions. This bodes well for India-based exporters who continue to add capacity and conducive *China+1* strategy by buyers.

Expansion plans –green field expansion to step-up capacity

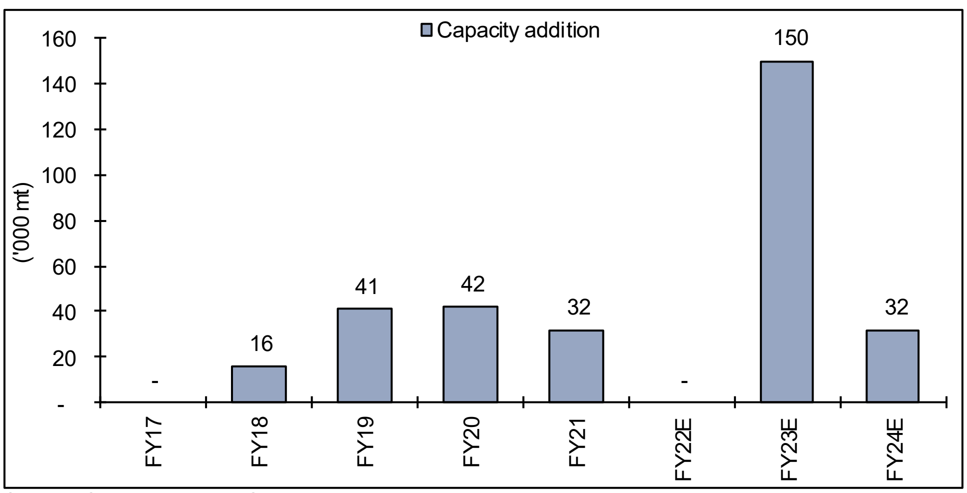
In the process of recalibration, PCBL has been cautious on capacity expansion, and has been adding capacity through brownfield route. The company has added only 83K mtpa capacity for rubber carbon black, and 48K mtpa capacity in specialty carbon black since FY17. During the same period, it kept its power capacity constant at 76MW, while higher capacity of carbon black adds to off-gases which was not utilised.

Capacity addition through greenfield expansion

PCBL is in the process of implementing greenfield expansion in Chennai where it plans to add 150k mtpa capacity of carbon black and 25MW of power by end-FY23. This capacity is targeted at enhancing rubber carbon black production to meet growing demand in domestic market and also emerging opportunities in exports. We understand capacity utilisation can reach peak of 85% (due to various product grades which require change overtime, and maintenance shut down); we see capacity utilisation hitting 81% in FY22E for rubber carbon black, which means for company to sustain growth post FY23E, it would need fresh capacity. Eventually, the company has plans to scale-up Chennai facility to 200k mtpa capacity.

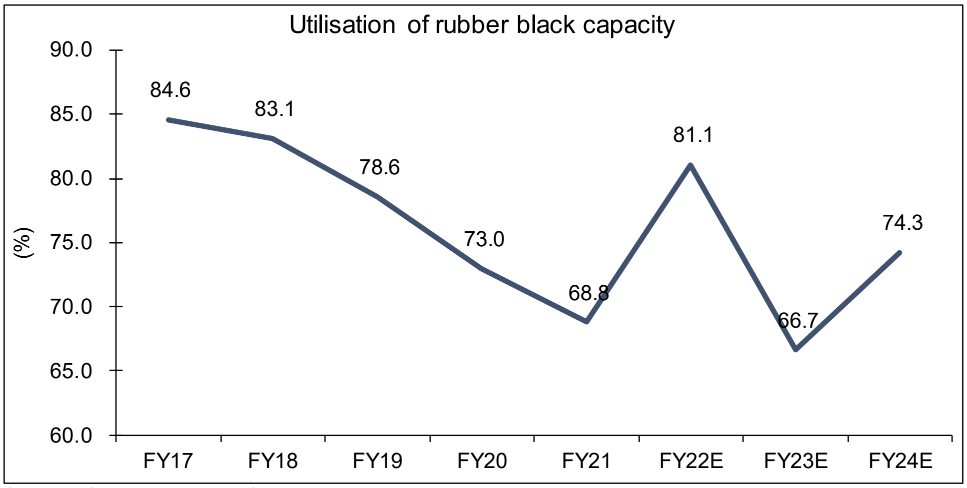
We understand that new plant would come with better and latest technology which should help the company improve efficiencies further. It expects investment of Rs6.5bn for carbon black facility and Rs1.5bn for power plant.

Chart 25: Carbon black capacity addition by PCBL



Source: Company data, I-Sec research

Chart 26: Rubber carbon black capacity utilisation for PCBL

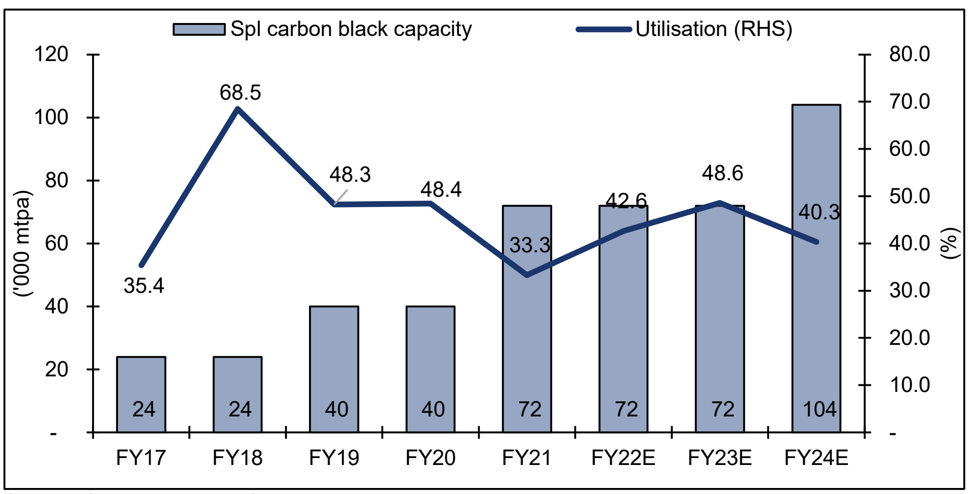


Source: Company data, I-Sec research

Adding capacity in specialty with new product launches

Though the company has made considerable progress in an otherwise consolidated industry of specialty carbon black, the progress has been gradual than anticipated. Nonetheless, the company remains optimistic on opportunities in specialty carbon black, and it has recently added two lines in Palej. It plans to add more capacity in specialty carbon black on the back of new product launches, and likely off-take of existing capacity. It sees continued rise in demand for specialty carbon black, and does not want to lose momentum. We understand the company has plans to invest Rs3-3.2bn in adding specialty carbon black capacity

Chart 27: Specialty carbon black capacity utilisation for PCBL



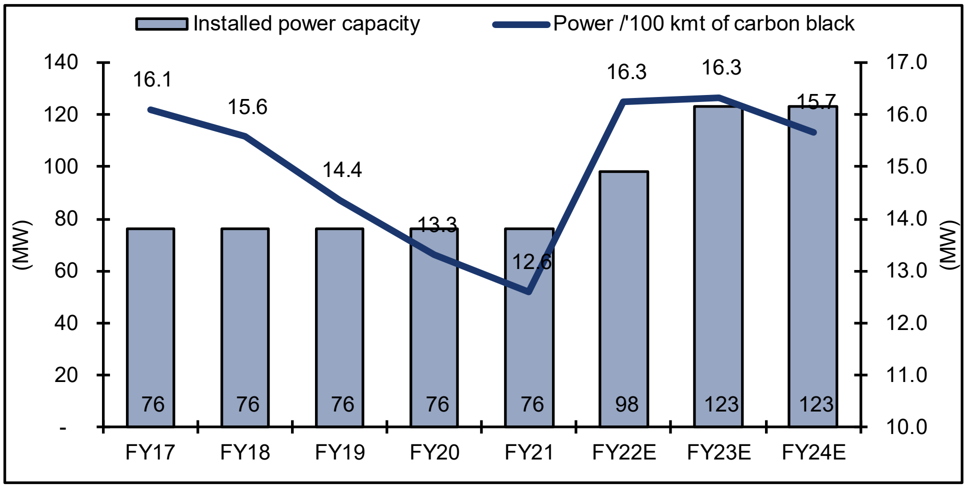
Source: Company data, I-Sec research

Power capacity expansion in existing plants will push EBITDA

PCBL has added 8MW of power plant in Mundra in FY22, and plans to add another 7MW each in Kochi and Palej. This is to take advantage of increased carbon black capacity in these plants over the past few years which led to higher off-gases production. The company has also improved efficiency which means it plans to produce more power with same off-gases.

The power capacities are afresh and would be entirely available for merchant market sale and do not require any additional power for captive consumption. This means the entire power generated would be sold in open market, and the bulk of power revenue will flow to EBITDA. Optically, this would increase the company's EBITDA/kg.

Chart 28: PCBL's power capacity is catching up with carbon black expansion



Source: Company data, I-Sec research

Financial analysis

We expect PCBL to deliver a strong performance in FY22 on the back of improved volumes, and higher realisation from a rise in coal price and logistic issues for imports. We have assumed FY23 to be year of normalisation on spreads, but new capacity should enable the company to grow volumes. Phillips' carbon black volumes are expected to grow at a CAGR of 12.1% over FY21-24E, though some benefit is seen from a favourable base.

Specialty carbon black volumes CAGR is seen at 20.5% over FY21-24E, which we believe is achievable considering the company's specialty carbon black capacity utilisation is just 33%; it is planning to add more capacity for new product introduction.

FY21 and FY22 gross profit/kg has been >Rs25/kg which we are cutting by Rs2/kg (down7.4%) for FY23. This is despite rising contribution from specialty carbon black, which helps increase gross profit/kg by 1.5% for every 100bps rise in contribution to revenue.

Carbon black EBITDA/kg is seen falling 13.8% to Rs11.8 in FY23 from commissioning of new capacity which would add to costs, but rise in utilisation would happen over the next few years.

Table 7: Carbon black EBITDA/kg to dip in FY23E on normalisation and greenfield expansion; partially offset by higher specialty carbon black mix

Rsmn	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E	CAGR % (FY21-24E)
Volumes									
Carbon black (mtpa)	4,72,000	4,88,000	5,29,000	5,71,000	6,03,000	6,03,000	7,53,000	7,85,000	9.2
Utilisation (%)	81.2	81.9	77.7	71.4	63.8	76.5	64.9	69.8	
Sales (mt)	**3,87,345**	**4,02,069**	**4,03,423**	**4,06,791**	**3,89,261**	**4,61,274**	**4,88,951**	**5,47,625**	**12.1**
Growth (%)	*15.6*	*3.8*	*0.3*	*0.8*	*(4.3)*	*18.5*	*6.0*	*12.0*	
of which specialty carbon black									
Capacity (mtpa)	24,000	24,000	40,000	40,000	72,000	72,000	72,000	1,04,000	13.0
Utilisation (%)	35.4	68.5	48.3	48.4	33.3	42.6	48.6	40.3	
Sales (mt)	**8,500**	**16,430**	**19,300**	**19,378**	**23,966**	**30,706**	**34,993**	**41,931**	**20.5**
Growth (%)	*70.0*	*93.3*	*17.5*	*0.4*	*23.7*	*28.1*	*14.0*	*19.8*	
Financial									
Realisation (Rs/kg)	**47.6**	**61.5**	**85.0**	**77.6**	**66.6**	**90.6**	**74.3**	**70.6**	**1.9**
Growth (%)	*(12.4)*	*29.4*	*38.3*	*(8.7)*	*(14.2)*	*36.0*	*(18.0)*	*(5.0)*	
Carbon black revenue	18,419	24,734	34,311	31,571	25,923	41,777	36,313	38,637	14.2
Growth (%)	*1.3*	*34.3*	*38.7*	*(8.0)*	*(17.9)*	*61.2*	*(13.1)*	*6.4*	
Gross profit/kg (excluding power)	**15.6**	**20.0**	**28.1**	**23.8**	**25.3**	**28.5**	**26.4**	**26.5**	**1.6**
Growth (%)	*673.6*	*233.9*	*40.8*	*(15.4)*	*6.2*	*12.7*	*(7.4)*	*0.4*	
Gross profit	**6,053**	**8,031**	**11,345**	**9,676**	**9,833**	**13,130**	**12,891**	**14,497**	**13.8**
Growth (%)		*32.7*	*41.3*	*(14.7)*	*1.6*	*33.5*	*(1.8)*	*12.5*	
GPM (%)	*32.9*	*32.5*	*33.1*	*30.6*	*37.9*	*31.4*	*35.5*	*37.5*	
EBITDA/kg (excluding power)	**4.8**	**7.6**	**13.3**	**9.7**	**12.0**	**13.7**	**11.8**	**12.3**	**2.1**
Growth (%)	*138.8*	*27.7*	*74.3*	*(27.1)*	*24.1*	*18.5*	*(13.8)*	*4.2*	
EBITDA	**1,868**	**3,071**	**5,368**	**3,945**	**4,685**	**6,332**	**5,784**	**6,750**	**14.4**
Growth (%)		*64.4*	*74.8*	*(26.5)*	*18.8*	*40.5*	*(8.7)*	*16.7*	
EBITDA (%)	*10.1*	*12.4*	*15.6*	*12.5*	*18.1*	*15.2*	*15.9*	*17.5*	

Source: Company data, I-Sec research

The company plans to add 22MW of power capacity in existing plants to benefit from rise in carbon black utilisation and past capacity addition. The power generated would largely be sold in merchant market which would add to EBITDA (EBITDA margin is 75-80%). It also plans to add 25MW of power plant in Chennai which may not add much to revenue / EBITDA in power segment.

Table 8: Power EBITDA (margin at 75-80% of revenue) to grow on fresh capacity addition in existing facility

	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E	CAGR % (FY21-24E)
Volume									
Sales (MU)	304	272	297	279	257	283	291	300	5.3
Growth (%)		*(10.7)*	*9.1*	*(5.9)*	*(7.9)*	*10.0*	*3.0*	*3.0*	
Financial									
Realisation (Rs/unit)	2.8	3.1	3.3	3.1	2.6	2.9	2.9	3.0	4.6
Growth (%)	*(16.6)*	*11.3*	*5.7*	*(5.7)*	*(15.6)*	*10.0*	*2.0*	*2.0*	
Power revenue (Rsmn)	851	845	975	865	673	814	855	898	10.1
Growth (%)	*12.2*	*(0.6)*	*15.3*	*(11.3)*	*(22.2)*	*21.0*	*5.1*	*5.1*	

Source: Company data, I-Sec research

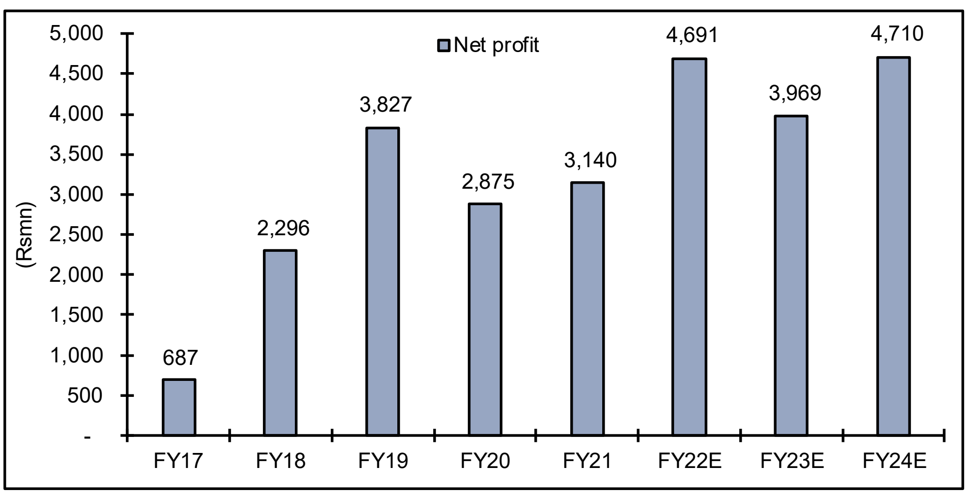
We forecast PCBL's EBITDA to grow at CAGR of 13.9% over FY21-24. Our assumption of EBITDA/kg to jump to Rs14 in FY24 from Rs13.3 in FY21.

Table 9: EBITDA expected to grow at CAGR of 13.9% over FY21-24E

Rsmn	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E	CAGR % (FY21-24E)
Revenue	**19,270**	**25,470**	**35,286**	**32,435**	**26,595**	**42,591**	**37,167**	**39,535**	**14.1**
Gross profit (Rs/kg)	**17.8**	**22.1**	**30.5**	**25.9**	**27.0**	**30.2**	**28.1**	**28.1**	**1.4**
Gross profit	6,904	8,877	12,320	10,540	10,506	13,943	13,745	15,395	13.6
Growth (%)	*25.5*	*28.6*	*38.8*	*(14.4)*	*(0.3)*	*32.7*	*(1.4)*	*12.0*	
GPM (%)	*35.8*	*34.9*	*34.9*	*32.5*	*39.5*	*32.7*	*37.0*	*38.9*	
EBITDA (Rs/kg)	**6.7**	**9.4**	**15.3**	**11.4**	**13.3**	**15.5**	**13.6**	**14.0**	**1.6**
EBITDA	2,581	3,768	6,162	4,641	5,180	7,146	6,639	7,649	13.9
Growth (%)	*56.5*	*46.0*	*63.5*	*(24.7)*	*11.6*	*37.9*	*(7.1)*	*15.2*	
EBITDA (%)	*13.4*	*14.8*	*17.5*	*14.3*	*19.5*	*16.8*	*17.9*	*19.3*	

Source: Company data, I-Sec research

Chart 29: Net profit is expected to grow at CAGR of 14.5% over FY21-24E



Source: Company data, I-Sec research

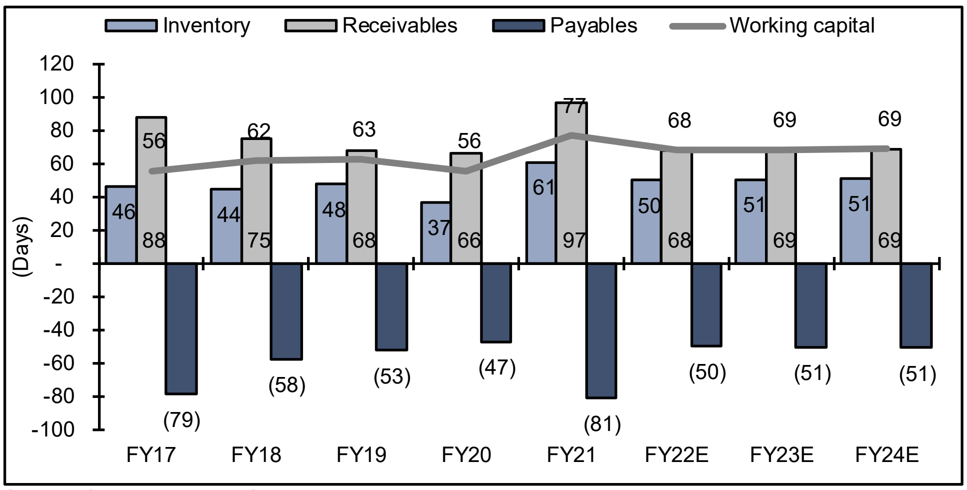
Capex investment for next 2-3 years is seen at Rs13-14bn of which Rs6.5bn will be toward greenfield Chennai rubber carbon black (150k mtpa capacity) and Rs1.5bn toward 25MW power plant in Chennai. Nearly Rs3.2bn capex seen for specialty capacity addition in Mundra, while the company will add 14MW of power with investment of Rs0.8bn. R&D investment could be Rs0.5bn and maintenance capex Rs0.5bn pa.

Table 10: Capex investments seen in next two years for greenfield expansion and power capacity addition

Rsmn	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
Operating CF	2,370	4,013	5,107	4,112	4,474	5,973	5,646	6,471
Chg in WC	1,094	(1,087)	(2,208)	1,209	(624)	(1,068)	533	(312)
CF from operations	**3,464**	**2,926**	**2,899**	**5,321**	**3,850**	**4,905**	**6,179**	**6,159**
Less Capex	*407*	*944*	*2,327*	*2,307*	*1,155*	*2,000*	*8,500*	*3,500*
FCF	**3,057**	**1,981**	**572**	**3,013**	**2,695**	**2,905**	**(2,321)**	**2,659**
% of PAT	*444.9*	*86.3*	*14.9*	*104.8*	*85.8*	*61.9*	*(58.5)*	*56.5*
Net finance cost	*(460)*	*(278)*	*(394)*	*(223)*	*(248)*	*(281)*	*(198)*	*(170)*
FCFE	**2,597**	**1,703**	**177**	**2,791**	**2,448**	**2,624**	**(2,519)**	**2,489**

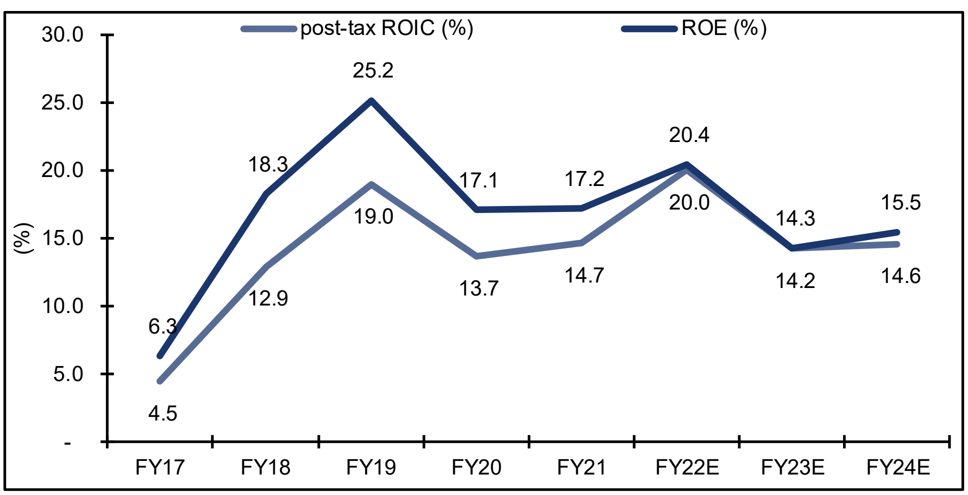
Source: Company data, I-Sec research

Chart 30: Inventory days rose in FY21-end which are expected to normalise



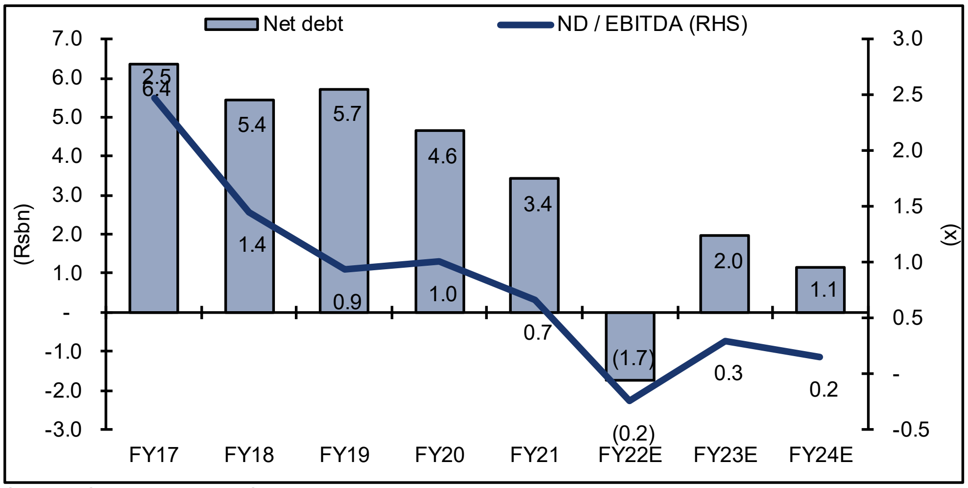
Source: Company data, I-Sec research

Chart 31: Return ratios are expected to dip on upfront investment



Source: Company data, I-Sec research

Chart 32: Balance sheet remains comfortable



Source: Company data, I-Sec research

Valuations – Initiate coverage with BUY

We initiate coverage on PCBL with a **BUY** rating and target price of Rs300. The target price is based on PE multiple of 12x FY24E EPS. Our valuation implies 7.5x FY24E EBITDA (EV/EBITDA). Global carbon black peers are trading at PE multiple of 8.8x CY23E EPS and have limited earnings growth compared to PCBL. India chemical peers are trading at significant premium to PCBL due to rising export opportunity and strong near-term growth outlook. Further, our coverage universe has higher return ratio of 18% in FY24E (*vs* 14% for PCBL in FY24E). The stock is trading at reasonable multiple of 9.9x FY24E EPS (PE); and 6.2x FY24E EBITDA (EV/EBITDA).

Why buy commodity chemical business which has very volatile history?

The counter arguments for BUY on PCBL are: **1)** Commodity nature of business and **2)** volatility in earnings.

As discussed earlier, the volatility in carbon black spreads could be significantly attributed to feedstock advantage enjoyed by Chinese manufacturers which looks to be behind for good. Further, CBO production growth (key feedstock for Chinese carbon black manufacturers) is expected to be limited on lower blast-furnace based steel plant addition which would likely limit Chinese carbon black capacity addition. And rising EV penetration is expected to negatively impact demand for crude oil, keeping crude oil price rise under check.

In the long run, China carbon black industry is likely to consolidate, and only serious players would remain in business, bringing rationality in pricing. We see supply-side dynamics, which was the key reason for price volatility, improve structurally.

Carbon black is a bulk commodity, no denying. However, demand dynamics are better and less volatile. Tyre demand is relatively stable due to higher contribution from replacement market and is unlikely to be disrupted by EV penetration. In fact, EV vehicles will require better quality tyres due to higher weight of vehicle on tyres and lower noise requirement. This would further reduce business case for small-scale regular grade carbon black manufacturers.

Specialty carbon black demand is likely to benefit from rise in battery application, while coating and plastics has secure demand growth.

A carbon black company would look less attractive on revenue growth *vs* other Indian chemical companies; however, its FCF generation, and return ratios would be healthy. This would show up in rising dividend yields and payouts. The valuation provides comfort and huge margin of safety.

We are generally positive on alternative to coal chemicals - carbon black and PVC. These products are manufactured in China using coal route and non-Chinese manufacturers use petroleum and natural gas route. Coal generates huge pollution, and Chinese government efforts to reduce pollution mean these industries may see continued adverse regulatory impact. On other side, structurally, crude oil prices may remain under pressure from EV penetration.

Further, *China+1* strategy should benefit volumes for India-based carbon black manufacturers as they may get preference over Chinese suppliers.

Table 11: Indian Chemical peers snapshot

Rs mn	CMP (Rs)	Mcap	Revenue FY22E	Revenue FY23E	Revenue FY24E	CAGR (%) FY21-24E	EPS (Rs) FY22E	EPS (Rs) FY23E	EPS (Rs) FY24E	CAGR (%) FY21-24E
SRF	2,404	7,12,065	1,17,151	1,28,794	1,46,929	20%	55.5	62.6	73.3	22%
Navin Fluorine	4,160	2,05,903	13,999	20,715	23,361	26%	54.6	77.5	88.7	19%
Gujarat Fluoro	2,290	2,51,671	38,666	42,921	47,623	22%	67.4	86.8	102.9	46%
Chemplast	560	88,542	60,455	58,664	59,032	16%	41.0	47.0	45.6	30%
Galaxy	3,111	1,10,285	36,038	33,875	36,649	10%	70.8	95.8	104.2	7%
Rossari	1,271	66,003	15,143	17,430	18,960	39%	19.5	30.1	35.1	32%
Sudarshan	563	38,974	22,058	25,133	27,963	14%	22.2	25.7	31.5	16%
Tatva Chintan	2,667	59,122	4,800	5,619	7,103	33%	47.7	56.9	73.0	41%
Clean Science	2,433	2,58,433	6,595	7,712	9,383	22%	21.6	28.2	34.0	22%
Median						**22%**				**22%**
Phillips Carbon	**246**	**46,426**	**42,591**	**37,167**	**39,535**	**14%**	**24.9**	**21.0**	**25.0**	**11%**

Rs mn	PE (x) FY23E	PE (x) FY24E	EV/EBITDA (x) FY23E	EV/EBITDA (x) FY24E	ROCE (pre-tax) FY23E	ROCE (pre-tax) FY24E	GB turnover (x) FY23E	GB turnover (x) FY24E	Capex FY23E	Capex FY24E
SRF	38.4	32.8	23.4	19.8	14.6	14.9	1.0	1.0	19,218	11,967
Navin Fluorine	53.7	46.9	37.4	32.3	17.1	16.7	1.4	1.2	4,887	3,157
Gujarat Fluoro	26.4	22.3	16.1	13.9	16.2	17.9	0.9	0.9	8,000	7,000
Chemplast	11.9	12.3	6.6	6.6	29.8	24.9	1.5	1.4	2,586	2,392
Galaxy	32.5	29.9	21.1	19.1	18.6	18.0	2.3	2.3	1,612	650
Rossari	42.3	36.2	24.2	21.2	29.3	27.4	6.1	5.9	350	368
Sudarshan	21.9	17.8	11.7	9.8	12.5	13.9	1.6	1.7	2,300	600
Tatva Chintan	46.9	36.6	35.1	26.8	21.0	23.3	1.8	2.0	850	460
Clean Science	86.2	71.5	62.0	50.7	34.5	34.5	1.4	1.3	1,700	1,785
Median	**38.4**	**32.8**	**23.4**	**19.8**	**18.6**	**18.0**	**1.5**	**1.4**		
Phillips Carbon	**11.7**	**9.9**	**7.3**	**6.2**	**12.7**	**14.0**	**1.2**	**1.1**	**8,500**	**3,500**

Source: Company data, I-Sec research

Table 12: Global carbon black peers snapshot

	CAGR (%) CY21E-23E Revenue	CAGR (%) CY21E-23E EBITDA	ROE (%) CY22E	ROE (%) CY23E	PE (x) CY22E	PE (x) CY23E	EV/EBITDA (x) CY22E	EV/EBITDA (x) CY23E
Cabot Corp	2.5	8.6	48.6	48.6	9.5	8.8	6.1	5.6
Orion Engineered Carbons	7.4	9.6	29.4	29.4	8.1	7.3	5.7	5.3
Jiangxi Black Cat Carbon	2.9	11.8	16.8	16.8	12.9	11.0	8.5	7.8
Median	**2.9**	**9.6**	**29.4**	**29.4**	**9.5**	**8.8**	**6.1**	**5.6**

Source: I-Sec research, Bloomberg

Risks

Downside risks

- Removal of anti-dumping duty on Chinese tyres into US, Europe and India which may slowdown demand for carbon black in regional market.
- Drop in coal chemical prices including carbon black oil. Chinese have disadvantage of feedstock on rise in coal prices, and scarcity of coal chemicals. Affordable availability of carbon black oil could revive fragmented Chinese carbon black industry, and international dumping may restart hurting spreads for non-Chinese carbon black manufacturers.
- Rise in crude oil price could increase input cost for PCBL and therefore, impact margins.
- New capacity addition in India remains strong – PCBL is adding greenfiled facility and Epsilon wishes to expand carbon black capacity to >300K mtpa (from 115k mtpa).
- Lower-than-expected success in specialty carbon black and exports market.
- Carbon black is polluting industry as it exhausts harmful off-gases. Any stringent regulation in these industries could increase capital employed.
- Silica significantly replacing carbon black in tyre reinforcement.

Upside risks

- Better-than-expected utilisation in carbon black and power helping driving faster profitability.
- Continued advantage over Chinese manufacturers in feedstock pricing.
- Higher-than-expected growth in specialty carbon black, particularly in battery components.

Financial summary

Table 13: Profit and Loss statement

(Rs mn, year ending Mar 31)

	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
Net revenue	**25,470**	**35,286**	**32,435**	**26,595**	**42,591**	**37,167**	**39,535**
Growth (%)	*32.2*	*38.5*	*(8.1)*	*(18.0)*	*60.1*	*(12.7)*	*6.4*
Less:							
Cost of goods sold	16,593	22,966	21,895	16,089	28,647	23,422	24,140
Gross profit	**8,877**	**12,320**	**10,540**	**10,506**	**13,943**	**13,745**	**15,395**
Total Operating Expenses	5,109	6,158	5,900	5,326	6,798	7,107	7,746
EBITDA	**3,768**	**6,162**	**4,641**	**5,180**	**7,146**	**6,639**	**7,649**
Less: Depreciation & Amortisation	605	664	924	1,101	1,191	1,678	1,800
EBIT	**3,163**	**5,498**	**3,717**	**4,079**	**5,955**	**4,960**	**5,849**
Less: Financial expenses	414	368	459	339	281	198	170
Add: Other income	288	199	290	180	189	198	208
Recurring Pre-tax Income	**3,036**	**5,329**	**3,548**	**3,920**	**5,863**	**4,961**	**5,887**
Less: Taxation	740	1,503	673	781	1,173	992	1,177
Recurring Net Income	**2,296**	**3,827**	**2,875**	**3,140**	**4,691**	**3,969**	**4,710**
Add: Extraordinary Items	-	-	-	-	-	-	-
Net Income (Reported)	**2,296**	**3,827**	**2,875**	**3,140**	**4,691**	**3,969**	**4,710**

Source: Company data, I-Sec research

Table 14: Balance sheet

(Rs mn, year ending Mar 31)

	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E
ASSETS							
Current Assets, Loan & Advances							
Cash & cash equivalent	1,726	1,155	1,521	2,644	5,815	1,105	1,919
Debtors	5,220	6,527	5,882	7,075	7,935	6,975	7,474
Inventories	3,099	4,603	3,262	4,448	5,834	5,142	5,524
Other current assets	852	1,212	1,436	1,039	1,663	1,451	1,544
Total Current Assets	**10,896**	**13,496**	**12,101**	**15,206**	**21,247**	**14,674**	**16,461**
Current Liabilities & Provisions							
Creditors	4,019	5,083	4,188	5,916	5,834	5,142	5,524
Current Liabilities	622	884	2,278	2,280	3,651	3,186	3,389
Provisions	785	845	859	853	1,365	1,191	1,267
Total Current Liabilities & Provisions	**5,426**	**6,812**	**7,324**	**9,048**	**10,850**	**9,520**	**10,180**
Net Current Assets	**5,470**	**6,684**	**4,777**	**6,158**	**10,397**	**5,155**	**6,281**
Investments	**3,202**	**3,666**	**1,596**	**2,008**	**2,008**	**2,008**	**2,008**
Fixed Assets							
Net block	14,615	16,709	19,410	20,047	20,856	27,678	29,378
Goodwill	-	-	-	-	-	-	-
Total Assets	**23,287**	**27,059**	**25,782**	**28,212**	**33,260**	**34,840**	**37,666**
LIABILITIES AND SHAREHOLDERS' EQUITY							
Shareholders Fund							
Equity share capital	345	345	345	345	377	377	377
Reserves and surplus	13,497	16,213	16,719	19,085	26,101	28,680	31,506
Total Shareholders Fund	**13,842**	**16,557**	**17,064**	**19,430**	**26,478**	**29,058**	**31,884**
Borrowings	**7,173**	**7,934**	**6,170**	**6,068**	**4,068**	**3,068**	**3,068**
Deferred Tax Liability	2,273	2,567	2,549	2,714	2,714	2,714	2,714
Minority Interest							
Total Liabilities & Shareholders' Equity	**23,288**	**27,059**	**25,782**	**28,212**	**33,260**	**34,840**	**37,666**

Source: Company data, I-Sec research

Table 15: Cashflow statement

(Rs mn, year ending Mar 31)

	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E
Cash Flow from Operating Activities							
PAT	2,353	4,048	2,884	3,260	4,691	3,969	4,710
Add: Depreciation	605	664	924	1,101	1,191	1,678	1,800
Add: Other Operating activities	1,054	395	304	112	92	(1)	(39)
Operating Cash Flow Before Working Capital change (a)	**4,013**	**5,107**	**4,112**	**4,474**	**5,973**	**5,646**	**6,471**
Changes in Working Capital	**(1,087)**	**(2,208)**	**1,209**	**(624)**	**(1,068)**	**533**	**(312)**
Net Cash flow from Operating Activities (a) + (b)	**2,926**	**2,899**	**5,321**	**3,850**	**4,905**	**6,179**	**6,159**
Cash Flow from Capital commitments (c)	**(944)**	**(2,327)**	**(2,307)**	**(1,155)**	**(2,000)**	**(8,500)**	**(3,500)**
Free Cash flow after capital commitments (a) + (b) + (c)	**1,981**	**572**	**3,013**	**2,695**	**2,905**	**(2,321)**	**2,659**
Cash Flow from Investing Activities							
Purchase of Investments	569	(521)	673	19	-	-	-
Others	32	73	566	(891)	189	198	208
Net Cash flow from Investing Activities (d)	**601**	**(448)**	**1,239**	**(872)**	**189**	**198**	**208**
Cash Flow from Financing Activities							
Increase in reserves	-	-	-	-	3,999	-	-
Proceeds from fresh borrowings	(581)	2,448	(1,919)	1,060	(2,000)	(1,000)	-
Dividend paid including tax and Others	(518)	(3,151)	(1,975)	(2,855)	(1,922)	(1,587)	(2,054)
Net Cash flow from Financing Activities (e)	**(1,099)**	**(704)**	**(3,894)**	**(1,795)**	**77**	**(2,587)**	**(2,054)**
Total Increase / (Decrease) in Cash (a) + (b) + (c) +(d) + (e)	1,484	(580)	359	28	3,171	(4,709)	814
Opening Cash and Bank balance	232	1,716	1,136	1,494	2,644	5,815	1,105
Closing Cash and Bank balance	1,716	1,136	1,494	1,522	5,815	1,105	1,919
Increase / (Decrease) in Cash and Bank balance	**1,484**	**(580)**	**359**	**28**	**3,171**	**(4,709)**	**814**

Source: Company data, I-Sec research

Table 16: Key ratios

(Year ending Mar 31)

	FY18	FY19	FY20	FY21E	FY22E	FY23E	FY24E
Per Share Data (in Rs.)							
Recurring EPS	13.3	22.2	16.7	18.2	24.9	21.0	25.0
Reported EPS	13.3	22.2	16.7	18.2	24.9	21.0	25.0
Recurring Cash EPS	16.8	26.1	22.0	24.6	31.2	29.9	34.5
Dividend per share (DPS)	6.0	4.7	7.0	7.0	8.7	7.4	10.0
Book Value per share (BV)	80.3	96.1	99.0	112.7	140.3	154.0	168.9
Growth Ratios (%)							
Operating Income	32.2	38.5	(8.1)	(18.0)	60.1	(12.7)	6.4
EBITDA	46.0	63.5	(24.7)	11.6	37.9	(7.1)	15.2
Recurring Net Income	234.1	66.7	(24.9)	9.2	49.4	(15.4)	18.7
Diluted Recurring EPS	(33.2)	66.7	(24.9)	9.2	36.4	(15.4)	18.7
Diluted Recurring CEPS	(55.1)	54.8	(15.4)	11.6	26.6	(4.0)	15.3
Valuation Ratios (% YoY)							
P/E	18.5	11.1	14.7	13.5	9.9	11.7	9.9
P/CEPS	14.6	9.4	11.2	10.0	7.9	8.2	7.1
P/BV	3.1	2.6	2.5	2.2	1.8	1.6	1.5
EV / EBITDA	12.7	7.8	10.1	8.8	6.3	7.3	6.2
EV / Operating Income	1.9	1.4	1.5	1.7	1.0	1.3	1.2
EV / Operating FCF	24.1	84.2	15.6	17.0	15.4	(20.8)	17.9
Operating Ratio							
Other Income / PBT (%)	9.5	3.7	8.2	4.6	3.2	4.0	3.5
Effective Tax Rate (%)	24.4	28.2	19.0	19.9	20.0	20.0	20.0
NWC / Total Assets (%)	23.5	28.6	18.5	21.8	31.3	14.8	16.7
Inventory Turnover (days)	44.4	47.6	36.7	61.1	50.0	50.5	51.0
Receivables (days)	74.8	67.5	66.2	97.1	68.0	68.5	69.0
Payables (days)	57.6	52.6	47.1	81.2	50.0	50.5	51.0
Net Debt/EBITDA Ratio (x)	1.4	0.9	1.0	0.7	(0.2)	0.3	0.2
Capex % of sales	3.7	6.6	7.1	4.3	4.7	22.9	8.9
Return/Profitability Ratio (%)							
Recurring Net Income Margins	9.0	10.8	8.9	11.8	11.0	10.7	11.9
post-tax RoCE	12.0	17.4	12.6	13.4	17.0	12.7	14.0
RoIC	12.9	19.0	13.7	14.7	20.0	14.2	14.6
RoNW	18.3	25.2	17.1	17.2	20.4	14.3	15.5
Dividend Yield	2.4	1.9	2.8	2.8	3.5	3.0	4.1
Gross Margins	34.9	34.9	32.5	39.5	32.7	37.0	38.9
EBITDA Margins	14.8	17.5	14.3	19.5	16.8	17.9	19.3

Source: Company data, I-Sec research

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Tables

Charts

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