



## Sudarshan Chemical Industries Ltd

Capacity expansion and mix change to drive growth

July, 2016

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**CMP: INR 238**
**Target: INR 335**
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**Bloomberg:**
**SCHI:IN**

52-week range (INR): 245/ 78

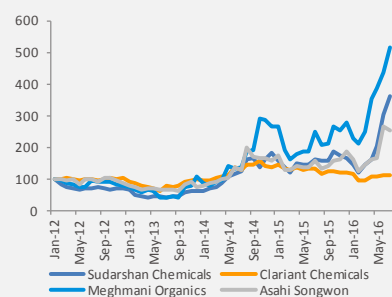
Share in issue (Cr): 6.9

M cap (INR Cr): 1,649

 Avg. Daily Vol. BSE/NSE  
 :('000): 65.6

**SHARE HOLDING PATTERN (%)**

(in %)	Mar-16	Dec-15	Sep-15
Promoter	52.89	52.89	52.89
Public	47.11	47.11	47.11
Others	—	—	—


 Date: 21<sup>st</sup> July, 2016

Sudarshan Chemical Industries Ltd. (Sudarshan) is one of the leading global players in the pigment industry with dominant domestic market share of ~35% and presence across inorganic, classical azo, high performance pigment (HPP) and effect pigment segments. Tilt of product mix in favour of high-margin HPP & effect pigment segments, sharpening focus on global markets of Europe and North America, wide distribution footprint and capacity augmentation at Roha site are set to spur 40% earnings CAGR over FY16-18E. At CMP of INR 238, the stock is currently trading at 15x FY17E EPS of INR 15.7 and 12x FY18E EPS of INR 19.7. We initiate coverage with a target price of INR 335.

**Sharpening focus on superior realisation organic pigments and export markets: Potent margin kicker**

Sudarshan derives almost 75% of its standalone sales from organic pigments which have higher realizations compared to inorganic pigments. Moreover, the company in its profitability quest, is enhancing the proportion of higher margin / realisation sub-segments like HPP and effect pigments in its product mix and moving away from the more commoditised classical azo range. The company is also sharpening focus on developed markets of Europe and North America, key HPP and effect pigments markets, to drive growth from these segments, reflected in the rising share of pigment exports revenue— 48% in FY16 from 42% in FY11. The company has already set up marketing subsidiaries in these geographies to cater to the client base in these regions. Moreover, lower commodity / crude oil prices are undoubtedly potent margin kickers.

**Capacity augmentation at Roha site to drive revenue spurt over FY16-20**

The company's expansion at the Roha site with a proposed investment of INR 1,100 crore has been granted Mega Project status under the Package Scheme of Incentives, 2013, by the government of Maharashtra in October 2015. Sudarshan has to invest a minimum of INR 750 crore in eligible fixed assets at the site within a period of five years from the date of application to be qualified as a Mega Project. The board has already approved capex of INR 162 crore, which will be expended over two years and the company envisages asset turn at par with current level—1.7-1.8x. With the company currently operating at 85-90% capacity utilization, we estimate this capacity augmentation to fuel 17% revenue CAGR over FY16-20.

**Zooming global and domestic fortunes of end-use industries: Humungous growth opportunity**

The three key end-user industries for the pigment business are coatings, plastics, ink and cosmetics; each contribute a third to Sudarshan's revenue. Each of these industries, with the exception of ink used in publications (slower growth due to digitalization of content), is likely to post 5-8% global and about 13-14% domestic growth. This presents an significant opportunity for the company to enhance revenue.

**Outlook and valuations: Robust fundamentals; maintain 'BUY'**

Shift in favour of premium products, diversified product portfolio, wide distribution reach and capacity additions position Sudarshan to clock 40% earnings CAGR over FY16-18E. At CMP of INR 238, the stock is currently trading at 15x FY17E EPS of INR 15.7 and 12x FY18E EPS of INR 19.7. We initiate coverage on the stock with 'BUY' recommendation and target price of INR 334, valuing it at 17x FY18E EPS of INR 19.7.

**Financials (Consolidated)**

Year to March	FY14	FY15	FY16	FY17E	FY18E
Revenue	1119	1218	1397	1633	1907
Rev. growth (%)	28	9	15	17	17
EBITDA	131	130	169	223	282
Net profit	35	54	70	109	137
Diluted EPS (INR)	10	8	10	16	20
Diluted P/E (x)			23.6	15.1	12.1
EV/ EBITDA (x)			11.9	9.6	8.0
ROE (%)	13.3	20.4	24.3	31.2	31.8
ROCE (%)	12.9	12.0	16.5	21.3	21.8

Sudarshan: Sales Growth + Margin Expansion + Improved Working Capital = Higher RoCE, Triggering Re-rating and Higher Returns

Sudarshan Chemicals is expected to grow at CAGR of 17%/29% in Revenue/EBITDA respectively over FY16-18E. The healthy growth will be driven by continuing shift of product mix towards HPP and effect pigments and capacity addition at the Roha site

Focus on higher margin products and capacity expansion at the Roha site with a minimum capex of INR 750 cr. to drive sales growth

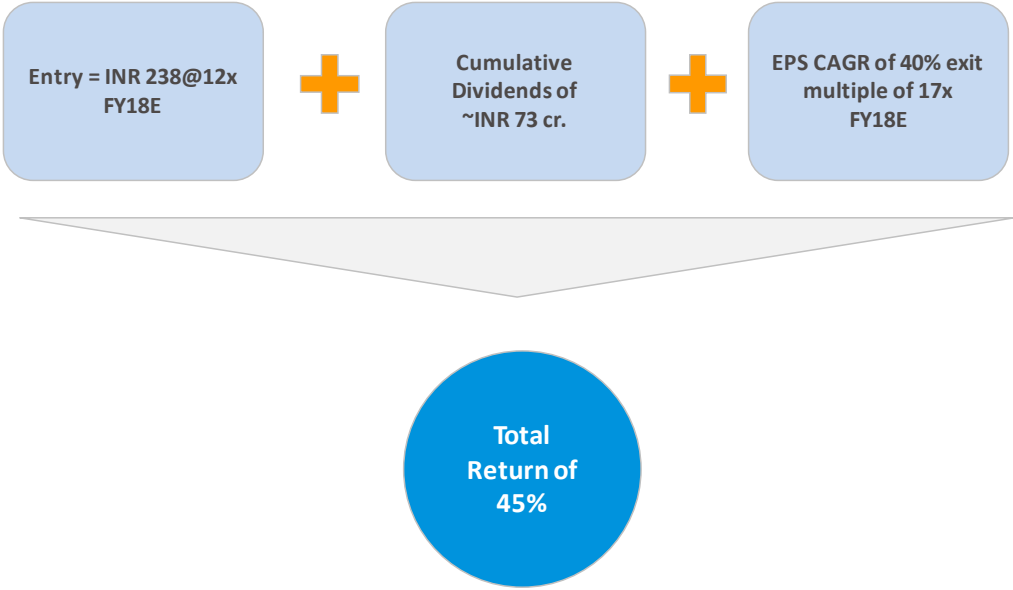
Lower working capital and better profitability will lead to improved ROACE

Margin improvement coupled with better ROACE would lead to the stock re-rating to 17x

	FY11	FY15	FY16	FY17E	FY18E	FY19E	FY20E
Revenue	724	1218	1397	1633	1907	2226	2602
EBITDA	87	130	169	223	282	320	386
EBITDA Margin	12.0	10.7	12.1	13.6	14.8	14.4	14.8
PAT	42	55	70	109	137	145	175

	FY11	FY15	FY16	FY17E	FY18E	FY19E	FY20E
RoACE (%)	20.8	12.0	16.5	21.3	21.8	20.3	20.9
Working Cap (Days)	117	97	74	74	74	74	74

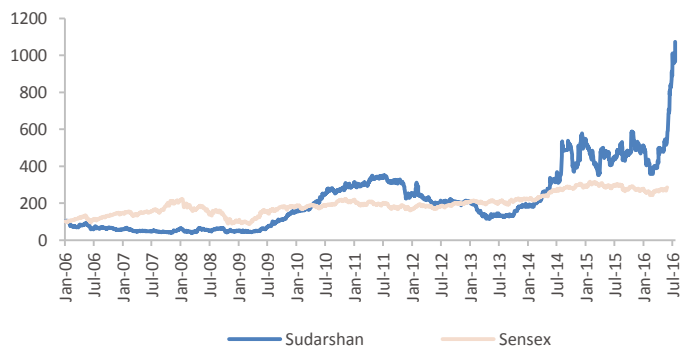
PE Multiple	FY18E EPS	Price Target
17x	19.7	335
20x	19.7	394



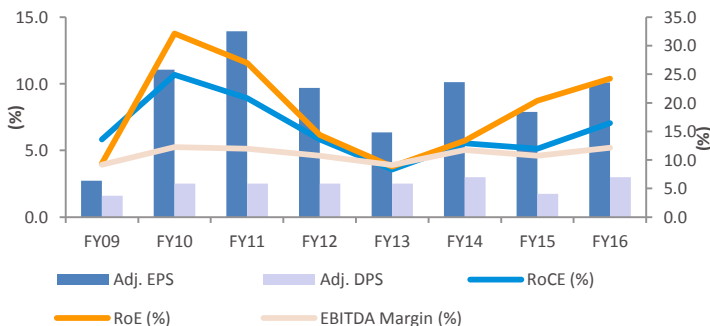
Average Daily Turnover (INR Cr)			Stock Price CAGR (%)				Relative to Sensex, CAGR (%)			
3 months	6 months	1 Year	1 Year	3 Years	5 Years	10 Years	1 Year	3 Years	5 Years	10 Years
1.84	1.05	0.73	99%	95%	23%	33%	101%	83%	15%	25%

	(INR Cr)					CAGR (%) / Median		Exp Growth (%)	
	FY12	FY13	FY14	FY15	FY16	FY12-FY16		FY16-FY18	
Net Sales	800	873	1119	1218	1397	15		17	
EBITDA	86	79	131	130	169	19		29	
Adjusted PAT	34	22	35	54	70	20		40	
1Yr Fwd PE(x)	5.6	4.4	10.8	11.7	14.8				
1Yr Fwd EV/EBITDA(x)	8.7	6.2	7.7	7.7	9.2				

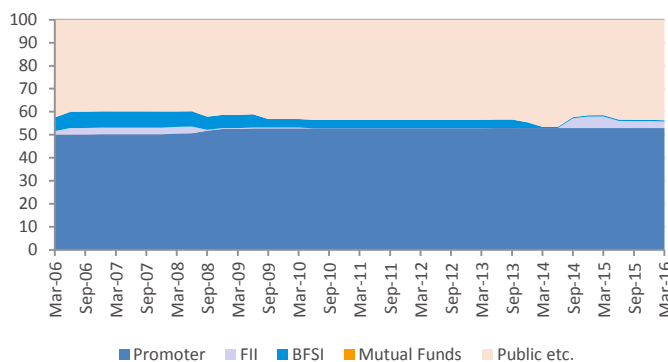
Stock Price, Sensex (Re-based)



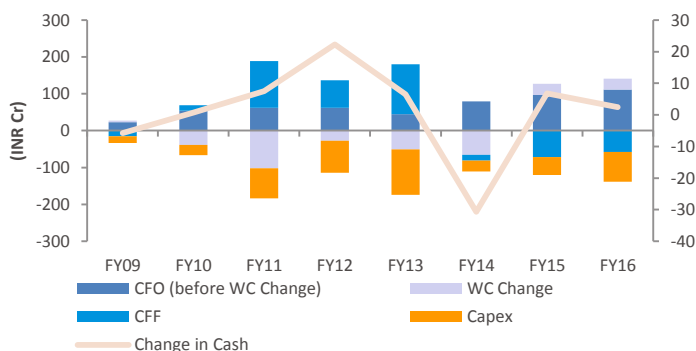
EPS, DPS, Margins, Returns



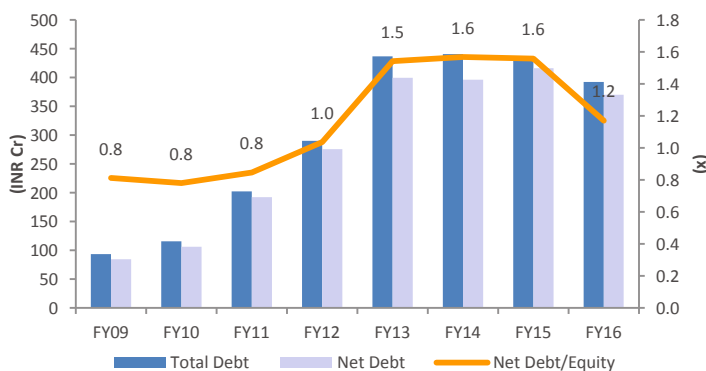
Movement in Shareholding



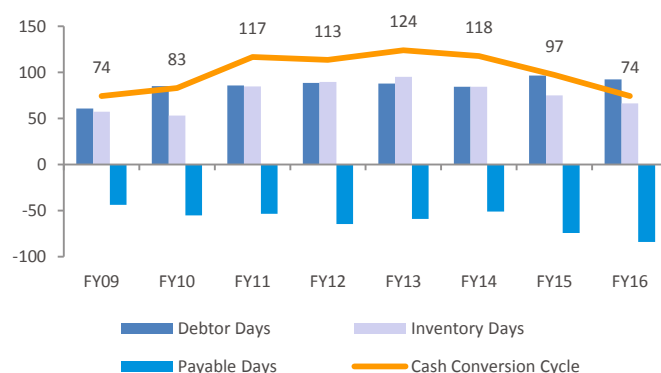
Cash Flow Analysis



Debt Analysis

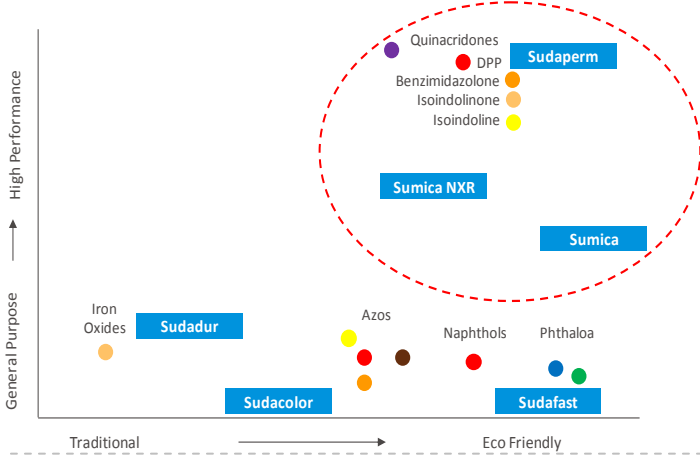


Working Capital Analysis



## Focus Charts – Story in a nutshell

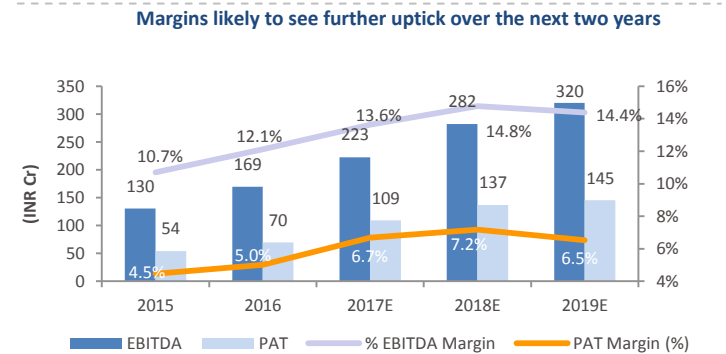
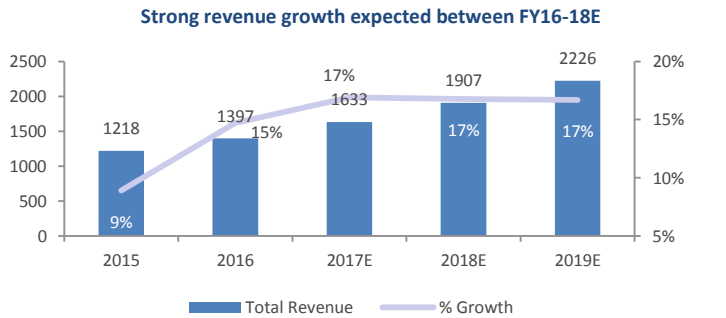
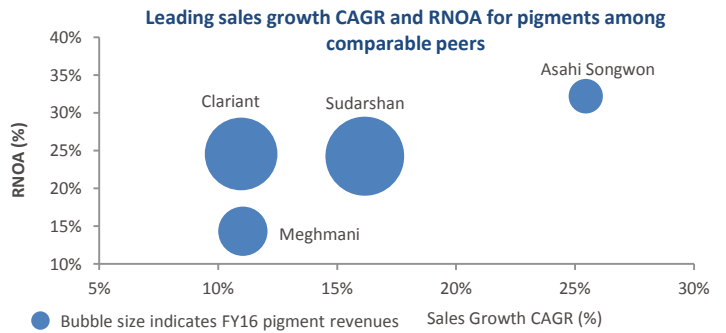
Only domestic player to have presence across the pigment value chain inclusive of high margin HPP and Effect pigment space



### Presence across the entire pigment chain

Inorganic Pigments	
Black & White	
Titanium Dioxide	HUNTSMAN, TRONOX, orion ENGINEERED CARBON
Carbon Black	CABOT, KRONOS
Color	
Chrome Oxides	
Iron Oxides	SUDARSHAN, HUNTSMAN, LANXESS Emerging Chemistry
Chroma Pigments	
Effect Pigments	SUDARSHAN, ECKART Effect Pigments, MERCK

Organic Pigments	Domestic Players	Only domestic player to have presence across all organic pigments	Global Players
Azos	Pidilite	<b>SUDARSHAN</b>	BASF The Chemical Company
Phthalos	MOL CHEMISTRY OF SUCCESS BY WORK, AsahiSongwon, Pidilite		Clariant, heubach COMPETENCE IN COLOUR
HPPs			FERRO
Benzimidazolones	Pidilite		SunChemical a member of the DIC group, DIC Color & Comfort
Quinacridones			
DPP			
Perylenes			
Isoindolinones			
Isoindoline			



# I. Inorganic pigments dominate market share, but organic pigments to grow at faster clip

Pigments (Refer to annexure at the end for the differences between dyes and pigments) can be classified into organic and inorganic based on their chemical composition. Organic pigments are based on carbon chains and carbon rings. However, they can also contain metallic (inorganic) elements that help stabilize properties of the organic component. On the other hand, inorganic pigments are usually metallic salts precipitated from solutions and are not carbon-based compounds.

Sudarshan has significant presence in the high realization organic pigment segment deriving 75% of its standalone revenues from this segment while deriving the rest from iron oxide and TiO2 coated mica based pigments

### Pigment Industry: Overview

**Value (\$bn)**

**Volume (mnt)**

In-Organic	
Advantage	Disadvantage
<ul style="list-style-type: none"> <li>✓ Better withstand the impact of sunlight &amp; chemical exposure</li> <li>✓ Good opacity &amp; protection by preventing light</li> <li>✓ Low cost in respect to the organic pigments</li> <li>✓ More durability</li> </ul>	<ul style="list-style-type: none"> <li>✗ Comparatively less brighter</li> <li>✗ Less rich and pure than the organic pigments</li> <li>✗ Low tinting strength so a large number of pigments are required to produce the desired effects</li> </ul>

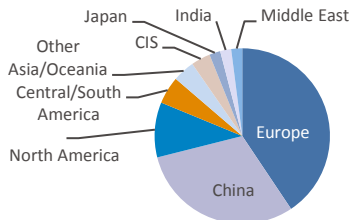
Organic	
Advantage	Disadvantage
<ul style="list-style-type: none"> <li>✓ More bright colors, higher color strength and</li> <li>✓ Have little toxicity</li> <li>✓ High grade organic pigments have excellent light fastness, weather fastness and heat and solvent resistance</li> </ul>	<ul style="list-style-type: none"> <li>✗ Low-grade variety of organic pigments are inferior to inorganic pigments in light fastness, weather fastness, heat resistance and solvent resistance.</li> </ul>

Source: Kolorjet Chemicals, Company, Edel Invest Research

## I(a). Inorganic colour pigment market

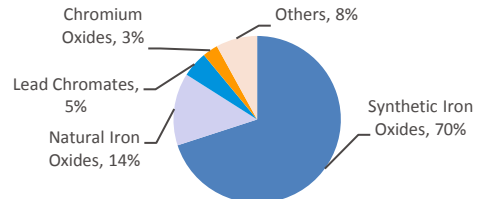
The inorganic pigment market can be further sub-divided into white and black pigments, which are dominated by titanium dioxide (TiO2) and carbon black pigments, respectively. Inorganic colour pigments include iron oxides, chrome and other pigments. Iron oxides dominate the inorganic colour market with a volume share of 84%, followed by chrome pigments with 8% market share and other pigments at 8%.

World consumption of inorganic colour pigments



Sudarshan has presence in the iron oxide sub segment in inorganic pigments and markets its pigments under the Sudadur brand name

Volume split of inorganic colour pigments

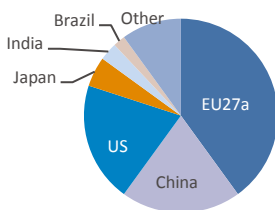


Source: IHS, Company, Edel Invest Research.

## I(b). Organic pigments

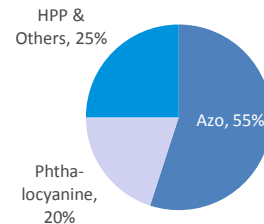
Organic pigments can be sub-divided by pigment class into azo pigments (containing a nitrogen group and accounting for majority of the red, yellow and orange colour pigments), phthalocyanines (blue and green pigments) and high-performance pigments (HPP). In terms of market share, azo accounts for 55%, phthalocyanine 20% and HPP & other account for 25%. While the classic azo and phthalocyanine pigment groups are characterized by low profit margins due to rising competition from lower-priced imports, the HPP group typically entails higher margins.

World consumption of organic colour pigments



Sudarshan has presence across all sub categories within organic pigments including all major organic high performance pigments

Value split of organic colour pigments



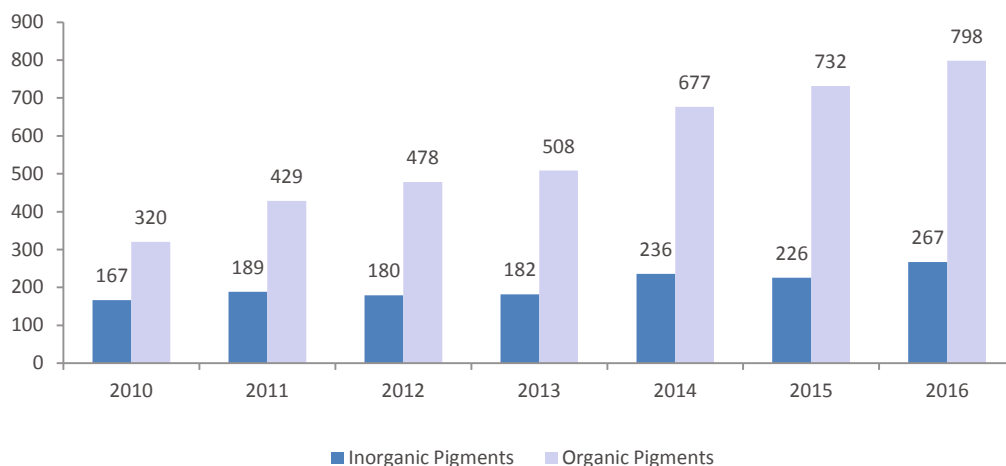
Source: IHS, Company, Edel Invest Research.

Sudarshan is the only domestic player to have presence across all organic pigments sub segments

### A. Presence across all organic pigment segments for Sudarshan

Sudarshan has presence across the Azo, phthalocyanine and HPP sub segments with no other domestic competitor having presence across all the segments (Refer to page 11). **Sudarshan has clocked 16% CAGR in the organic pigments segment** compared to 6% CAGR in the inorganic pigments space between FY10-16 leading to the contribution of organic pigments increasing from 66% in FY10 to 75% in FY16.

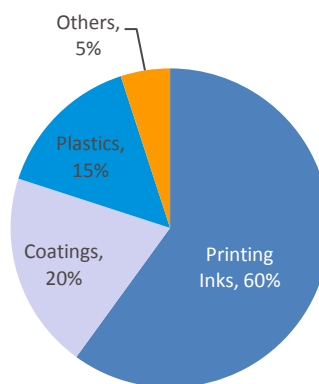
**Sudarshan's organic pigment's standalone sales have outstripped inorganic pigment's**



Source: Company, Edel Invest Research.

Though the internet's proliferation has taken a toll on the printing market for publication of newsprint and periodicals, demand for printing ink for packaging remains strong. Organic pigments in China and India are estimated to grow ~5% per year due to rising demand for inks and coatings.

**Consumption of organic colour pigments by industry**



Source: IHS, Company, Edel Invest Research.

Sudarshan has presence across major HPP organic pigments and plans to further increase its revenues from this high margin sub segment

### B. HPP: Higher margin, better realisations and lower competition

The three essential characteristics of HPP are performance excellence, persistence in application and high value-added economics for all parties in the supply chain. The pigment is resistant to light, heat, humidity, organic solvents, water and detergents. The market can be further divided into organic and inorganic HPP.

Major Organic High Performance Pigments	Major Inorganic High Performance Pigments
Benzimidazolones	Bismuth Canadate
Quinacridones	Cadmium Sulfide
Perylenes	Mixed Metal Oxides
Diketopyrrolopyrrole (DPP)	Bismuth Ferrite
Isoindolinone	
Isoindoline	

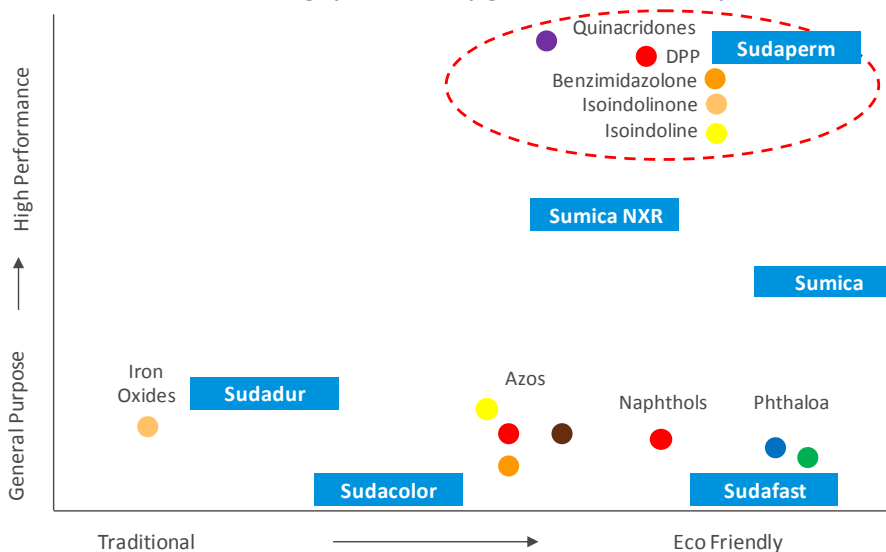
#### Sudarshan has capability across major organic HPPs, Product mix likely to move further towards HPP

Sudarshan has presence in the organic HPP space producing all the major types of organic high performance pigments listed above with Pidlite the only domestic player having presence in Benzimidazolones although international players like Clariant, Heubach and Sun Chemicals also have some presence in the market. (Refer to page 11).

The company aggressively ventured into the HPP segment following a three-year expansion phase ending FY13 and markets its organic HPP offerings under the *Sudaperm* brand.

HPP entail higher realizations compared to ordinary or commoditized pigments as they require higher investments and in general have longer customer approval timelines. Although Sudarshan does not disclose the proportion of revenue attributable to the HPP segment, **management has been pursuing a strategy of shifting its product mix in favour of HPP and effect pigments, which carry higher margins compared to commoditized pigments.**

Sudarshan markets its high performance pigments under the Sudaperm brand

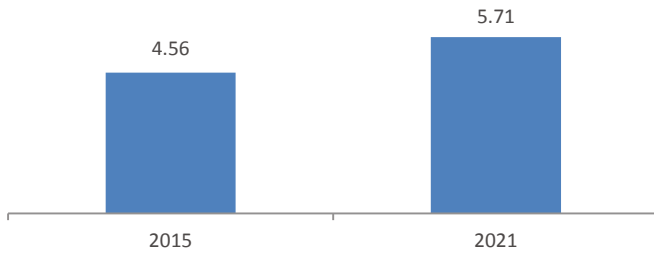


Source: Company, Edel Invest Research.

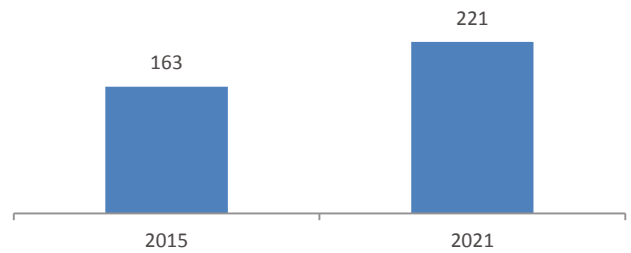


**The global HPP demand was estimated at 162.8 kilo tons in 2015 with a market size of US\$ 4.56 bn. The market is expected to post 3.81% CAGR in value terms and volume CAGR of 5.2% over FY15-21.**

**HPP Market in terms of Value (\$ bn)**



**HPP Market in terms of Volume (kt)**

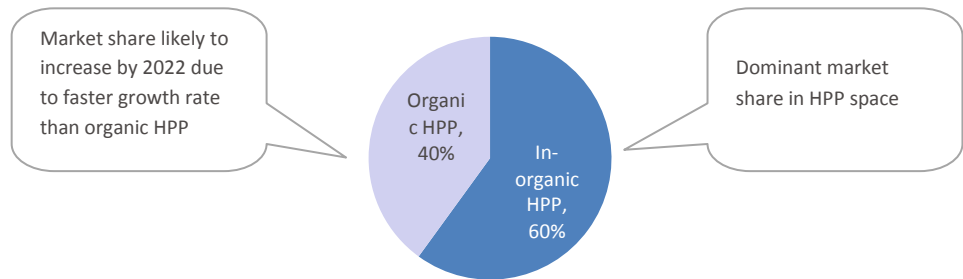


Source: Company, Edel Invest Research.

Organic HPP market to grow at a faster pace than the inorganic HPP market

High pigment prices and volatile raw material prices have resulted in intense competition in the HPP market. Ergo, players' constant endeavour is to prune manufacturing costs to maintain margins to counter the high competitive intensity. This is reflected in the lower implied pricing estimates for HPP which are expected to fall by ~7.5% between FY15 and FY21. Inorganic HPP emerged as the leading product segment with demand share exceeding 60% of global market in 2014. However, **organic HPP are expected to surge at a faster clip on account of changing customer buying patterns and favourable regulatory milieu with the industry moving from metal-based to organic pigments.**

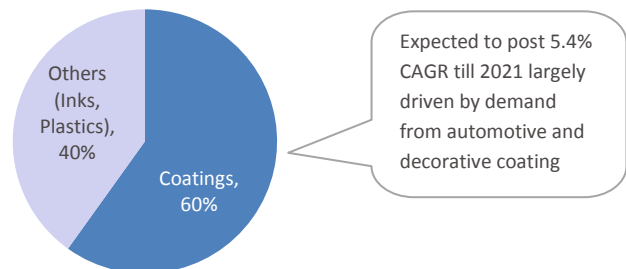
**Split of HPP industry**



Source: Company, Edel Invest Research.

Coatings was the leading application segment accounting for 59.9% of total HPP market volume in 2014 and it is expected to register 5.4% CAGR by FY21 driven by the global automotive coatings industry. Developments in the ink jet printing technology are anticipated to spur HPP demand in the ink industry. Europe dominated the global market with demand share estimated at 31.8% in FY14 with developed markets of North America and Europe accounting for a lion's share. However, Asia Pacific is estimated to clock the highest growth of 6.0% over FY15-22 with rising automobile production in China, India, Thailand and Indonesia

**HPP application industry**

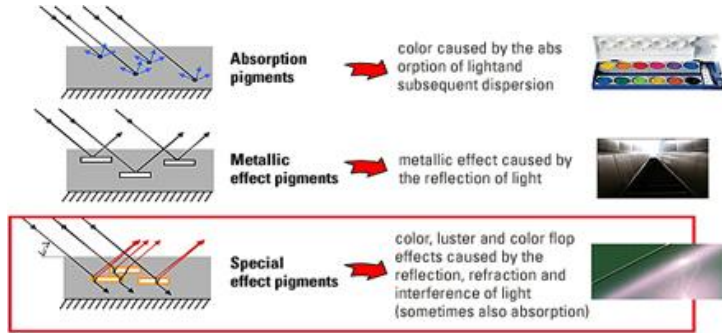


Source: Company, Edel Invest Research.

Sudarshan is the only domestic producer of effect pigments

### C. Pearlescent effect pigments: Sudarshan sole domestic player in a niche category

Pearlescent pigments combine the properties of absorption and metal effect pigments; thanks to their particular layered structure, light is reflected at different levels in the pigment. Under the right conditions, the reflected waves can interfere with each other, causing amplification or cancellation. Depending on the structure of layers in each case, this creates the interference colour lending the pigments their unique character.



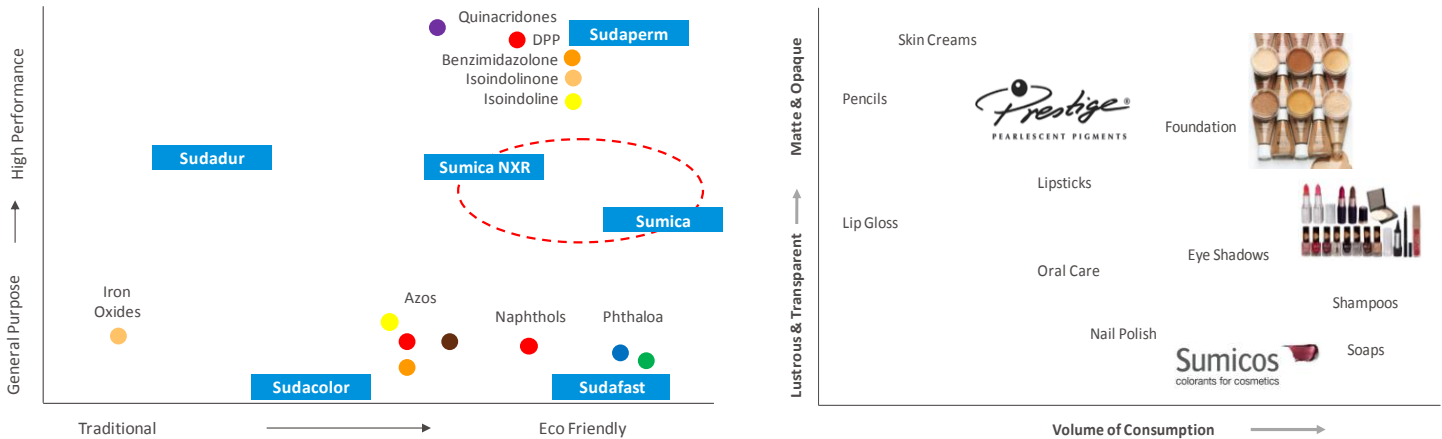
Natural mineral mica is the most used inorganic pearlescent pigment. After extraction, it is cleaned, ground and then coated with one or more metal oxides (TiO<sub>2</sub> mostly) in a precipitation process resulting in a layer-substrate pigment. The result is a specific interference colour, depending on the thickness of the metal oxide. A wide variety of effects can be achieved from matte shimmer similar to a pearl or interference looks with significant shimmer in all colours of the rainbow.

Colour progression changes as the thickness of TiO<sub>2</sub> increases as shown below:



**Sudarshan is the sole domestic producer of effect pigments with none of the Indian competitors having presence in this segment.** (Refer to page 11) Sudarshan markets effect pigments under *Prestige* & *Sumicos* brands for cosmetics and under the *Sumica* & *Sumica NXR* brands for other effect pigment applications. The company expanded its presence in this category after acquiring Eckart GmbH's natural mica pearlescent business and bagging brands *Prestige* and *Flonac - C* in December 2011.

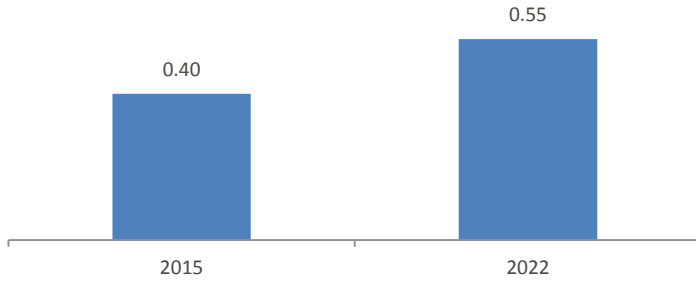
### Sudarshan markets industrial effects pigments under *Sumica* brand and cosmetic effect pigments under *Prestige* and *Sumicos* brands



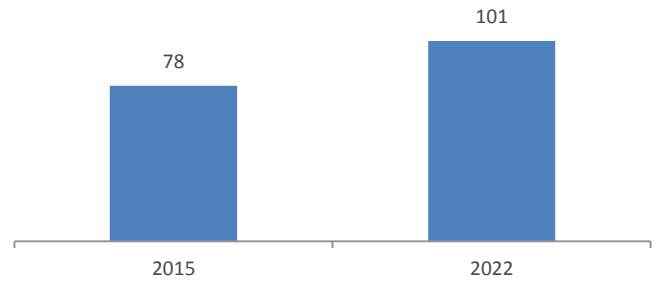
Source: Company, Edel Invest Research

**Global pearlescent pigment market demand was at 78.2 kilo tons in FY15 and is expected to reach 100.7 kilo tons by FY22, a CAGR of 4.6%, with the market size expected to touch USD 0.55 bn by FY22 from USD 0.4 bn in FY15.**

**Pearlescent pigment market in value terms (\$ bn)**



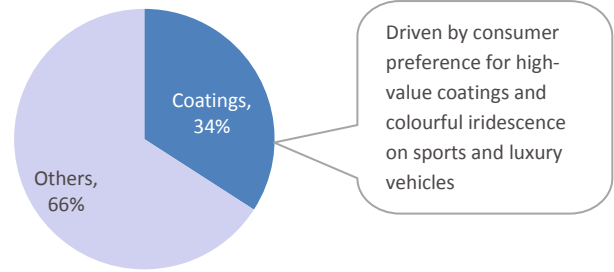
**Pearlescent pigment market in volume terms (kt)**



Source: Company, Edel Invest Research.

Expanding automotive & construction industries in emerging markets are expected to be key growth drivers of the pearlescent pigment market. Paints and coatings was the leading application segment and accounted for 34.1% of total market volume in FY14 driven by demand for pearlescent coatings on sports and luxury vehicles. Plastic is expected to see the highest growth of 5.1% over FY15-22.

**Pearlescent effect pigments: Application industry**



Source: Company, Edel Invest Research.

TiO2 coated mica pigment was the leading product segment with demand share exceeding 35% in FY14.

While North America was the leading regional market with demand share estimated at 38.2% in FY14, Asia Pacific is expected to post the highest growth of 5.1% over FY15-22. Rapid industrialization and expansion of major end-user industries such as automotive and construction, particularly in China and India, are expected to drive regional growth.

Sudarshan has presence across majority of the pigment value chain

**D. Global footprint: Presence across segments, wide network burnishing Sudarshan’s prospects**

Sudarshan’s domestic competitors like Meghmani Organics and Asahi Songwon have a strong presence in the phthalocyanine segment, while Pidilite is present in azo, phthalocyanine and quinacridones segments. Sudarshan has the entire product range of pigments—synthetic iron oxide pigments, classical azos, phthalocyanines and HPP and is also the sole producer of effect pigments in India.

Organic Pigments	Domestic Players	<p>Only domestic player to have presence across all organic pigments</p> 	Global Players	
Azos			<p>Only domestic player to have presence across all organic pigments</p> 	 The Chemical Company     COMPETENCE IN COLOUR     a member of the DIC group   Color & Comfort
Phthalos	 CHEMISTRY OF SUCCESS AT WORK  			
HPPs				
Benzimidazolones				
Quinacridones				
DPP				
Perylenes				
Isoindolinones				
Isoindoline				

Inorganic Pigments	
<b>Black &amp; White</b>	
Titanium Dioxide	    <small>ENGINEERED CARBONS</small> 
Carbon Black	
<b>Color</b>	
Chrome Oxides	   <small>Energizing Chemistry</small>
Iron Oxides	
Chroma Pigments	
Effect Pigments	  <small>Effect Pigments</small> 

Sudarshan has a global distribution presence with marketing subsidiaries in the key markets of Europe and North America

### E. Well developed global distribution network

The company has a global distribution network with 6 sales offices, 19 stock points and 80 channel partners. It has been operating in the pigment business for more than 50 years and has developed significant goodwill with clients, largely driven by consistency in quality, extensive sales, distribution network and supply chain network.

Since majority of the pigment market is in the developed market of Europe and North America, management has set up marketing subsidiaries in both the geographies, which is likely to spur significant revenue growth over the next four-five years.



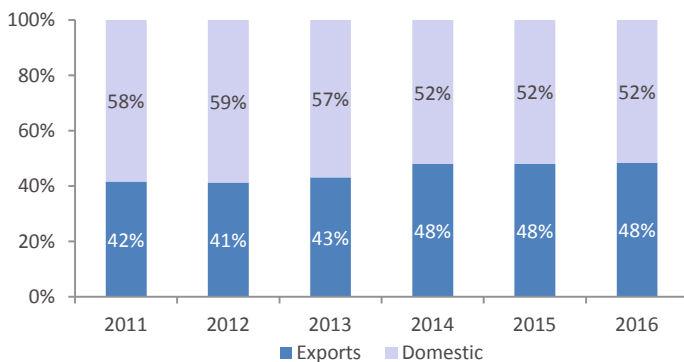
Source: Company, Edel Invest Research.

### F. Strong sales growth in key markets of Europe and North America

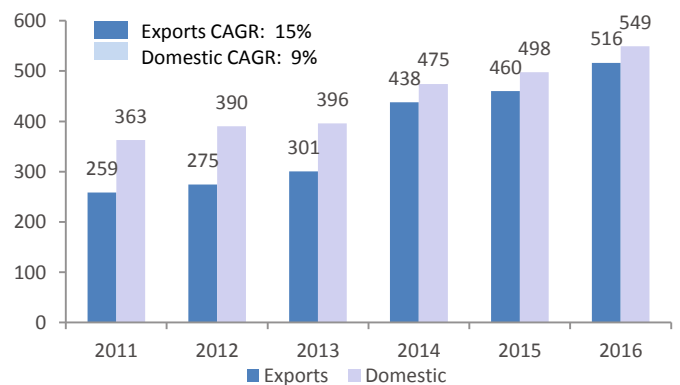
The European subsidiary Sudarshan Europe B.V. which includes the step-down subsidiary Sudarshan North America clocked sales CAGR of ~33% between FY11 and FY16 and recorded sales of INR 194 crore in FY16. **We estimate this high growth trajectory to continue with sales expected to increase at an 18% CAGR between FY16 and FY20 driven by increased capacities at Roha and expansion in new markets in Europe and North America.**

The company has competition only from global pigment giants like Clariant, Sun Chemical/ DIC, BASF and Heubach, making it a truly global player. Sudarshan derived 48% pigment revenues from exports in FY16, up from 42% in FY11, and management has further identified exports to new regions as key growth markets.

#### Share of exports in sales increasing; trend likely to sustain



#### Exports jumped 2x domestic sales over FY11-16



Source: Company, Edel Invest Research.

Sales growth to be driven by incremental capex of INR 750-1100 crores at the Roha site which is likely to generate asset turns of 1.7-1.8x

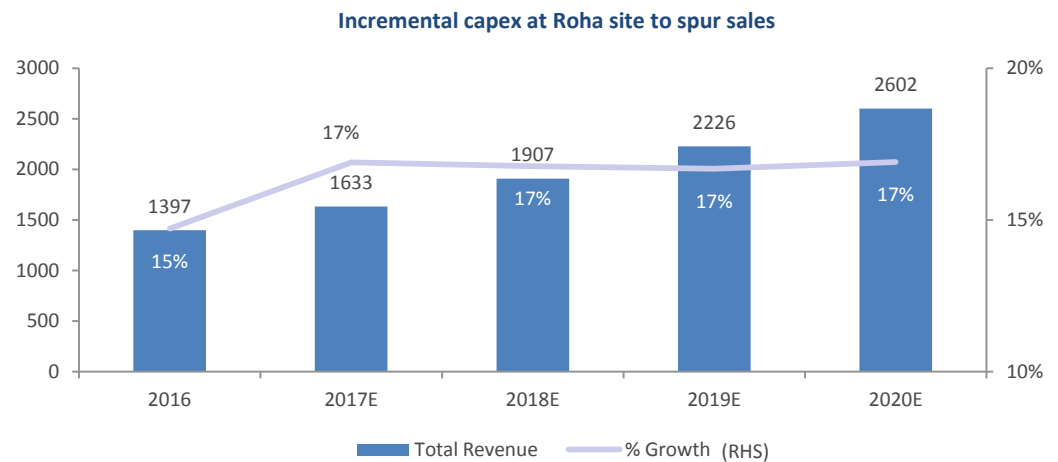
### G. Higher capex on Roha site to boost sales

Sudarshan was granted Mega Project status under the Package Scheme of Incentives, 2013, by the Government of Maharashtra in October 2015 for its upcoming expansion at the Roha site. In February 2016, the company revised the proposed investment in the site from initial INR 1,000 crore to INR 1,100 crore.

The industrial promotion subsidy as a Mega Project will, however, be admissible only after the company invests a minimum INR 750 crore in eligible fixed assets at the site within a period of 5 years from the date of application, failing which, the project will not be treated as a Mega Project but as a normal unit under the Package Scheme of Incentives 2013.

The company's board has already approved a capex of INR 162 crore, which will be expended over two years. Management expects the capex to generate asset turns similar to the current level of ~1.7-1.8x.

The capex is also expected to be done in phases and will be a mix of debottlenecking and new lines with average gestation period of ~9-12 months. We expect this capacity to fuel revenue growth over the next four years as existing capacity is already running close to 85-90% utilisation. **We forecast sales CAGR of ~17% between FY16 and FY20 largely riding incremental capex of INR 800 crore.**



Source: Company, Edel Invest Research.

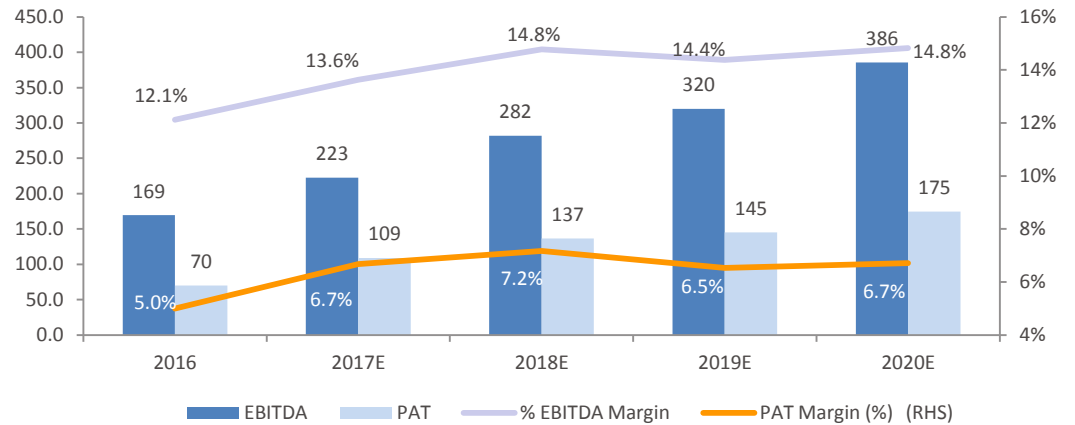
Management is planning to fund this capex with 75% bank loans and 25% via internal accruals. We estimate a 50-50% split as the company will generate enough cash flow from operations to fund 50% of the capex.

### H. Significant improvement in gross margin partly offset by increase in SG&A expenses

Sudarshan's gross margin catapulted ~200 bps in FY16 driven by fall in commodity prices, operational efficiencies and better sourcing of raw materials. However, this was partially offset by substantial jump in SG&A expenses, which catapulted 100 bps.

**We estimate gross margin to improve by 100-200 bps between FY17-20E with SG&A expenses reverting to long term average of ~18% of sales and the company continues to see benefits of subdued crude prices and better raw material sourcing. We expect Sudarshan to deliver EBITDA margin in the 14-15% range till FY20.**

### EBITDA margin likely to improve on reduced costs and operational efficiencies



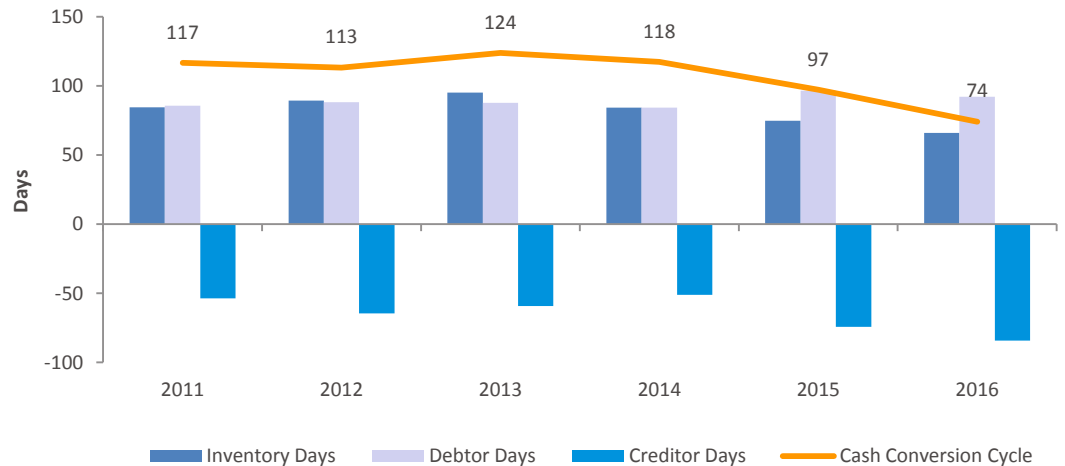
Source: Company, Edel Invest Research.

The company is also in the process of registering a wholly-owned Chinese subsidiary to procure raw materials locally at more favorable prices as opposed to prices quoted for exports from China. This will further better gross margin in the future as Sudarshan, on an average, imports ~25% of its raw material. The subsidiary will also be in a position to keep stock and invoice customers. We are not factoring in any potential uptick in margin due to setting up of this subsidiary.

### I. Working capital improvement likely to sustain

Sudarshan has improved its working capital cycle substantially by significantly pruning inventory days and increasing creditor days, resulting in reduction in the cash conversion cycle from 124 to 74 days between FY13 and FY16. Ergo, **we expect the working capital cycle to remain near current levels for our forecast period.**

### Working Capital improvement has been substantial

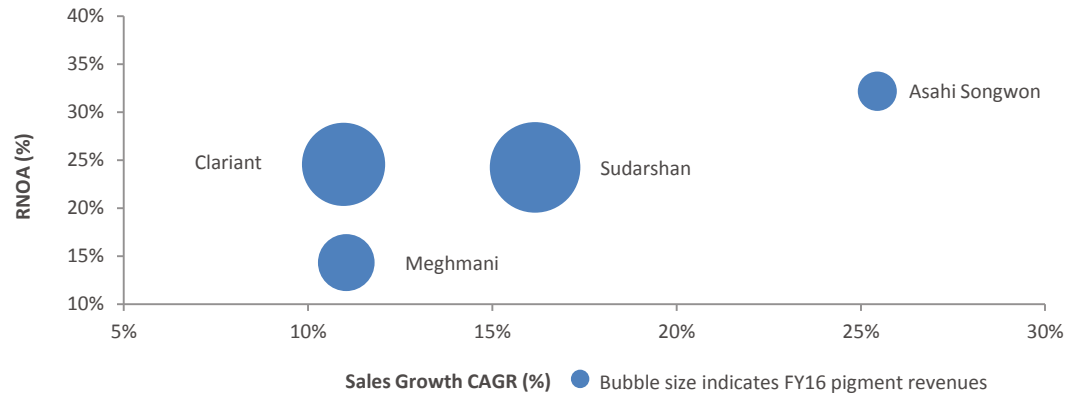


Source: Company, Edel Invest Research.

### J. Sudarshan has clocked superior sales growth with similar RNOA compared to peers

Sudarshan has commendably posted superior sales CAGR over the past 10 years compared to larger peers like Clariant and Meghmani, with only Asahi recording better sales growth, albeit on a low base, while also earning similar return on net assets (RONA) as peers in the pigment business.

Comparison of pigment sales growth and RNOA with key peers




Source: Company, Edel Invest Research.

### K. Key global and domestic end markets set to clock robust growth

The key end markets for the pigment industry are paints, coatings, inks and plastics. Each of the end-user industry is likely to register substantial growth till FY20 with the domestic market likely to post growth in excess of 1.5-4.0x compared to global markets. Sudarshan derives approximately 1/3rd revenue from paints & coatings, inks and plastics.

Global End User Industry Market \$bn

India End User Industry Market \$bn

	Market Size - 2016	Market Size - 2020	Growth	Market Size - 2016	Market Size - 2020	Growth
<b>Plastic Industry</b> 	481	654	8%	44	74	14%
<b>Paints &amp; Coatings</b> 	150	185	5%	5	9	13%
<b>Printing Inks</b> 	17	20	5%	1	1	8%
<b>Cosmetics</b> 	314	390	4%	1.4	2.6	15%

Source: Company, Edel Invest Research.



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### **L. Implementation of REACH Phase 3 regulations may unleash industry consolidation: A boon for Sudarshan**

The EU has introduced Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations in June 2007 which address the production and use of chemicals and their potential impact on human health and environment.

REACH Phase 3 is scheduled to be implemented by June 1, 2018, and it will regulate any chemical supplied to EU at quantities of 1 ton p.a. or more. REACH increases the safety, health and environmental compliance of chemical manufacturers supplying to EU, and as a result affects underlying process costs.

While most big exporters are already in the process of becoming REACH compliant, mid to small scale companies are likely to find it difficult. This may result in shutdown of small scale operators and shift in market share from the unorganized to organized sector. This trend is most likely to benefit Sudarshan as it is the only domestic player to have substantial size and presence across the value chain of pigments.

The agrochemicals segment accounted for only 6% of the standalone sales for Sudarshan

### Agrochemicals segment: Low growth, steady state business with stable margin

In the agrochemical segment, Sudarshan currently manufactures a range of agrochemical active ingredients and formulations at its Roha plant, while also offering customized services related to research, development and manufacture of agrochemicals, intermediates and specialty chemicals from pilot production to commercial production.

The segment manufactures technicals and formulations across all agrochemical categories (insecticides, fungicides and herbicides).

Insecticides Technicals and Formulations		
Insecticide Name	Market 2013 - Volume (KI/Mt)	Market 2013 - Value (INR mn) at NRV
Triazophos	4000	1360
Chlorpyrifos	10000	2000
Imidacloprid	20000	7800
Acetamiprid	2000	2100
Phosphamidon	–	–

Fungicides Technicals and Formulations		
Fungicide Name	Market 2013 - Volume (KI/Mt)	Market 2013 - Value (INR mn) at NRV
Hexaconazole	3500	875
Tricyclazole	2000	2100

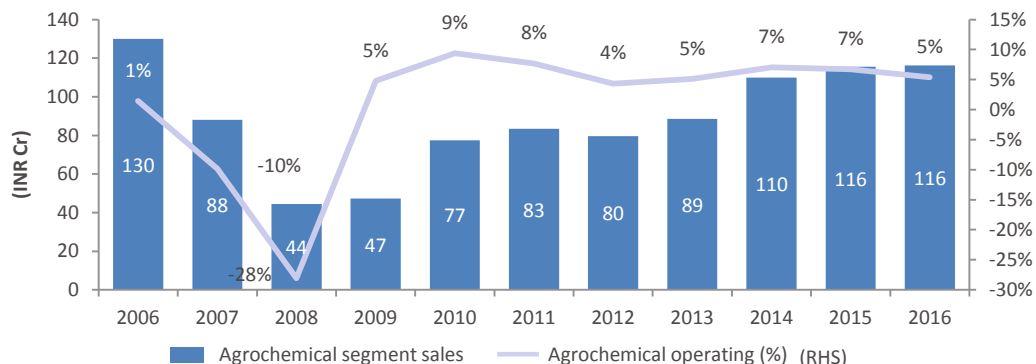
Herbicides Technical and Formulation		
Herbicide Name	Market 2013 - Volume (KI/Mt)	Market 2013 - Value (INR mn) at NRV
Pretilachlor	5000	1875

Source: Kagashin Advisors, Company, Edel Invest Research

The division currently contributes 6% to the company's total revenue and 4% to operating profitability. This division operated on a B2C model till FY08, wherein the company supplied formulations and intermediates to farmers via its network of 935 dealers. This model involved higher fixed costs and working capital requirements resulting in significant losses.

In FY09, management restructured the division and shifted to B2B model with strong focus on making operations profitable and cutting fixed costs. The company has since started selling active ingredients, intermediates and formulations to major domestic agrochemical players. The restructuring paid dividends as the segment has since turned profitable with average operating margin of ~6% while also clocking ~13% CAGR since FY09.

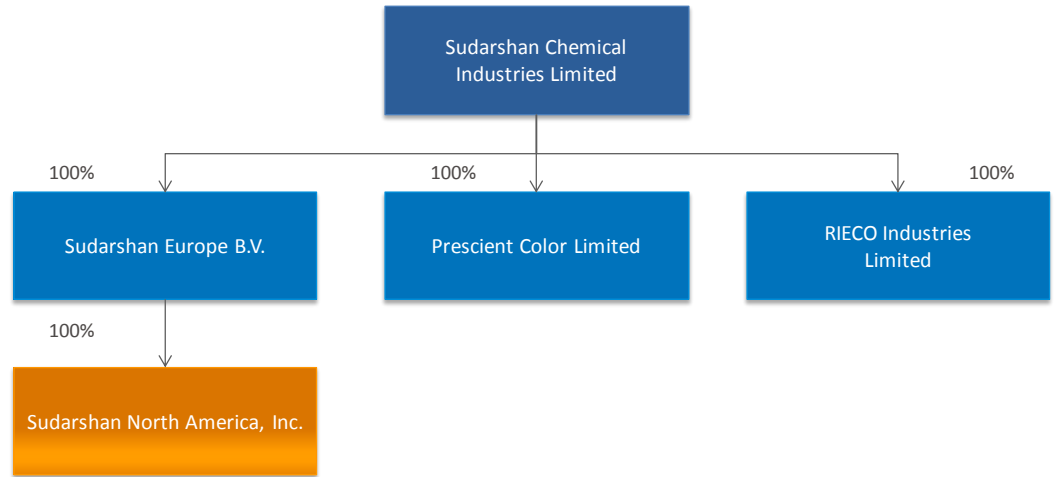
### Agrochemicals segment: Sales and operating margin on the mend



Source: Company, Edel Invest Research

**We estimate the agrochemicals business to grow at a moderate rate of 6% till FY20, in line with growth clocked over the past couple of years.**

### Sudarshan Chemical Industries Limited: Group structure



Source: Company, Edel Invest Research

### Recent acquisitions

In October 2014, Sudarshan acquired 100% stake in Rieco Industries (owned by Rathi family) for INR 16 crore. Rieco Industries is a manufacturer of air pollution control and size reduction equipment and became a wholly-owned subsidiary of Sudarshan. The company recorded a turnover of INR 93 crore in FY16.

Sudarshan has been using mixers since inception for mixing various pigments. These mixers were sourced from Rathi Mixers and thereafter from Rathi Vessels and Systems. Considering that there is synergy in terms of managerial resources, common customers and good potential to scale up, Sudarshan acquired Rathi Vessels & Systems' industrial mixers business as a going concern on slump sale basis for INR 2.5 crores.

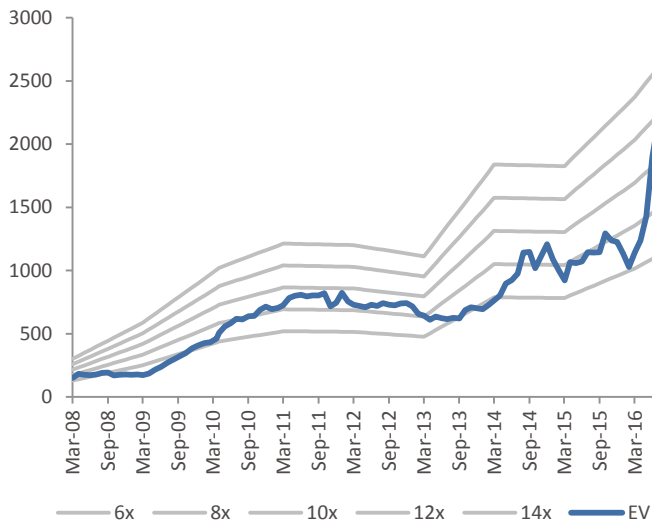
## Outlook and Valuations

Planned capacity expansions, further penetration in export markets, diversified product mix coupled with robust distribution reach and dominant domestic market share will drive earnings CAGR of 40% over FY16-18E. At CMP of INR 238, the stock is currently trading at 15x FY17E EPS of INR 15.7 and at 12x FY18E EPS of INR 19.7. We initiate coverage on the stock with 'BUY' recommendation and target price of INR 335, implying an upside of 45% inclusive of dividends from the current share price.

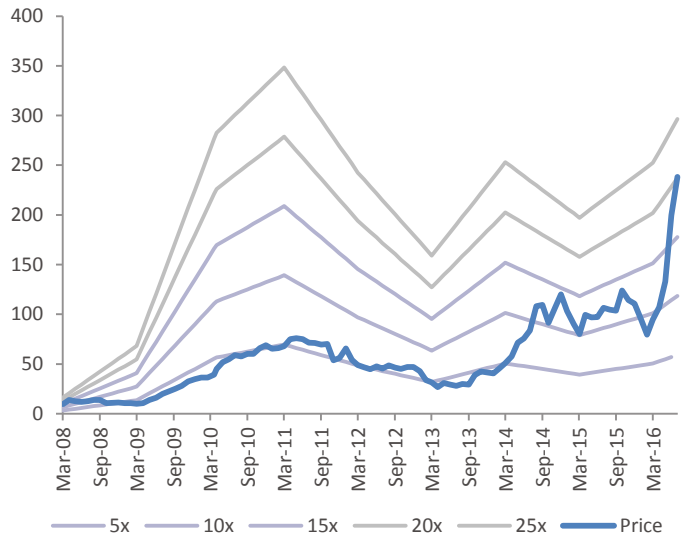
### Rationale behind 17x FY18E earnings multiple

- Sudarshan is expected to post earnings CAGR of 40% over FY16-18E driven by incremental capex expected to come on line at the Roha site. Management is also planning to enhance sales from export markets, which currently contribute ~48% to sales
- The company is also focusing on shifting its product mix in favour of higher price and higher margin HPP and effect sub segments, which is bound to spur margin.
- Considering the diversified product profile, dominant domestic market share of ~35% and the planned capacity expansions which are likely to drive revenue growth, we believe Sudarshan should trade at ~20x FY18E earnings but considering the opacity of the revenue mix and expansion plans we are taking a haircut to this multiple and value the company at 17x FY18E earnings

EV/EBITDA bands



PE bands



Source: Company, Edel Invest Research.

## Peer comparison

Company (x)	PER			EV/EBITDA			P/BV			P/Sales		
	FY16	FY17E	FY18E	FY16	FY17E	FY18E	FY16	FY17E	FY18E	FY16	FY17E	FY18E
Clariant Chemicals*	6.1	NA	NA	11.0	NA	NA	3.8	NA	NA	1.9	NA	NA
Meghmani Organics	12.8	NA	NA	NA	NA	NA	2.1	NA	NA	1.2	NA	NA
Asahi Songwon	13.9	11.0	8.8	6.1	5.5	5.0	1.8	NA	NA	0.9	NA	NA
Sudarshan	23.6	15.1	12.1	11.9	9.6	8.0	5.3	4.3	3.5	1.2	1.0	0.9

Company (%)	RoE			RoCE			Assets turnover (x)		
	FY14	FY15	FY16	FY14	FY15	FY16	FY14	FY15	FY16
Clariant Chemicals*	95.7	NA	NA	95.4	NA	NA	0.5	NA	NA
Meghmani Organics	6.5	10.4	18.9	9.2	12.0	17.7	0.9	1.0	1.1
Asahi Songwon	8.9	11.7	14.3	11.3	15.0	16.5	1.3	1.5	1.3
Sudarshan	13.3	20.4	24.3	12.9	12.0	16.5	1.5	1.7	1.9

Company (%)	Sales growth			EBITDA margin			EPS growth		
	FY14	FY15	FY16	FY14	FY15	FY16	FY14	FY15	FY16
Clariant Chemicals*	-23.9	NA	-1.0	1.8	NA	5.6	465	NA	NA
Meghmani Organics	19.2	5.7	4.3	5.4	9.6	14.3	106.5	117.1	83.9
Asahi Songwon	31.1	-18.9	-6.5	12.2	15.4	NA	62.8	4.9	18.6
Sudarshan	28.4	8.8	15.3	12.0	10.6	12.0	59.2	55.2	28.6

## Cash-conversion cycle

	Inventory Days			Receivable Days			Payable Days			Cash conversion cycle Days		
	FY14	FY15	FY16	FY14	FY15	FY16	FY14	FY15	FY16	FY14	FY15	FY16
Clariant Chemicals	65	NA	NA	65	NA	NA	91	NA	NA	39	NA	NA
Meghmani Organics	62	60	57	101	82	100	57	56	55	106	86	102
Asahi Songwon	33	46	32	69	83	83	45	52	31	57	77	84
Sudarshan	84	75	66	84	97	92	51	74	84	118	97	74

\*Impacted by one-off non operating items, companies mentioned above are not direct competitors

Source: Bloomberg, Capital Line, Company

## Key Risks

### **Volatility in input costs can adversely affect margin**

Prices of basic chemicals required to manufacture pigments are fairly volatile and crude dependent, with varying lags to pass on price hikes. Since the industry is competitive with a large number of unorganized players, the ability to pass on price hikes is limited. This could lead to fluctuations in the company's margins.

### **Competition in international markets**

Sudarshan faces competition from global majors BASF, Clariant, Lanxess, Heubach and Sun Chemicals in Europe and US. Although we believe the company will be successful in the enhancing its market share in export markets and penetrating into newer geographies, competition could pose a risk to our assumptions.

### **Foreign exchange volatility**

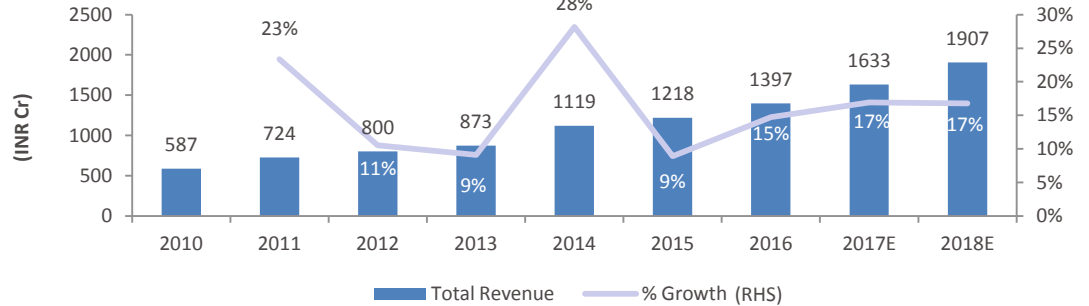
While Sudarshan derives almost 48% of its pigment revenue from exports, it also imports almost 25% of its raw materials. Moreover, the company also has an ECB borrowing of ~EUR 13 mn, exposing it to forex risk. Although the company hedges its net exposure on a six month basis using forwards and options, any volatile movement in foreign currencies may impact its earnings negatively.

## Financial Details

Sales for the company are likely to be driven by the planned capex of the management at its Roha site. Margins are likely to be slightly better over the next couple of years driven by lower commodity prices, operational efficiencies and the expected setup of the Chinese subsidiary to source raw materials.

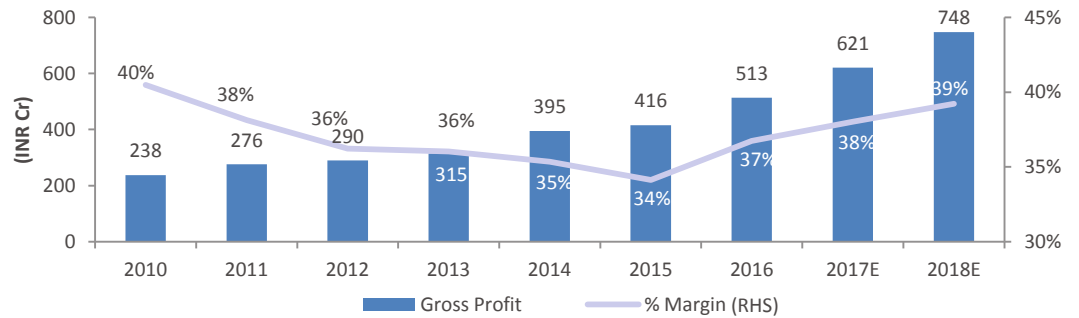
**We estimate revenue CAGR of 17% over FY16-18 slightly higher compared to a 15% CAGR growth registered by the company between FY10-16. Growth is likely to be driven by organic pigments which are expected to grow ~20% CAGR till FY18 while inorganic pigments are expected to grow at 14%**

Sales growth to be driven by incremental capex



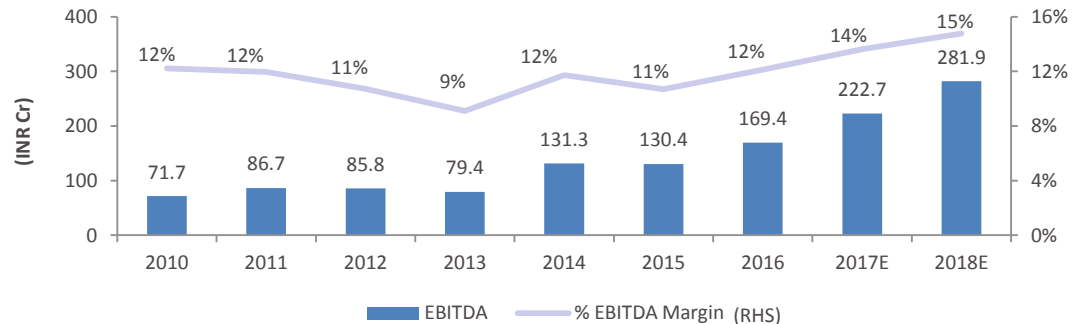
Gross margins are expected to increase by 100-200 bps over the next couple of years as operational efficiencies kick in and the company continues to see benefits of subdued crude prices and better raw material sourcing.

Gross Profit and Gross Profit Margin

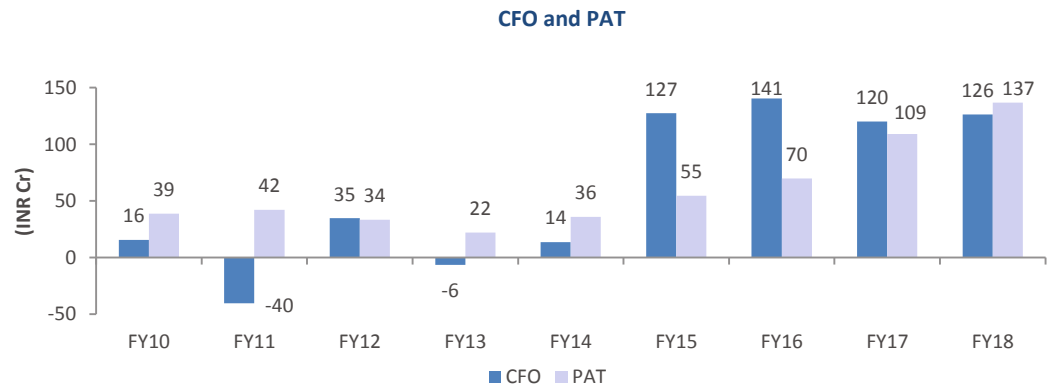


EBITDA margins are also likely to inch up in line with gross margins and are expected to be between 14-15% over the next two years.

EBITDA and EBITDA Margin



The company has generated better cash flow from operations compared to its profits driven by significant improvement in its working capital cycle over the past two years.



Source: Company, Edel Invest Research



## Financials

Income statement (Standalone)					(INR crs)
Year to March	FY14	FY15	FY16	FY17E	FY18E
Income from operations	1119	1218	1397	1633	1907
Total operating expenses	987	1088	1228	1411	1625
EBITDA	131	130	169	223	282
Depreciation and amortisation	37	42	48	43	54
EBIT	95	89	121	179	228
Interest expenses	43	39	34	38	48
Profit before tax	55	72	99	151	190
Provision for tax	20	17	29	42	53
Core profit	35	54	70	109	137
Extraordinary items	1	0	0	0	0
Profit after tax	36	55	70	109	137
Adjusted net profit	36	55	70	109	137
Equity shares outstanding (mn)	1	7	7	7	7
EPS (INR) basic	51	8	10	16	20
Diluted shares (Cr)	1	7	7	7	7
EPS (INR) fully diluted	51	8	10	16	20
Dividend per share	15	2	3	5	7
Dividend payout (%)	30	22	30	30	30

Common size metrics- as % of net revenues					(INR crs)
Year to March	FY14	FY15	FY16	FY17E	FY18E
Operating expenses	88.3	89.3	87.9	86.4	85.2
Depreciation	3.3	3.4	3.4	2.6	2.8
Interest expenditure	3.8	3.2	2.5	2.3	2.5
EBITDA margins	11.7	10.7	12.1	13.6	14.8
Net profit margins	3.2	4.5	5.0	6.7	7.2

Growth metrics (%)					
Year to March	FY14	FY15	FY16	FY17E	FY18E
Revenues	28.2	8.9	14.7	16.9	16.8
EBITDA	65.3	(0.7)	29.9	31.4	26.6
PBT	113.3	29.1	38.2	53.1	25.4
Net profit	59.3	55.2	28.6	56.0	25.4
EPS	59.3	(84.4)	28.1	56.0	25.4

**Balance sheet**

<b>As on 31st March</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17E</b>	<b>FY18E</b>
Equity share capital	7	14	14	14	14
Preference Share Capital	0	0	0	0	0
Reserves & surplus	264	249	300	371	461
Shareholders funds	271	263	314	385	474
Secured loans	323	280	254	336	417
Unsecured loans	118	152	138	182	226
Borrowings	440	432	393	518	643
Minority interest	0	0	0	0	0
<b>Sources of funds</b>	<b>711</b>	<b>694</b>	<b>707</b>	<b>903</b>	<b>1,117</b>
Gross block	592	644	732	932	1,132
Depreciation	264	311	359	402	456
Net block	327	333	373	530	676
Capital work in progress	7	8	0	0	0
Total fixed assets	334	341	373	530	676
Unrealised profit	0	0	0	0	0
Investments	0	0	0	0	0
Inventories	258	250	253	296	346
Sundry debtors	258	322	353	413	482
Cash and equivalents	15	23	25	32	36
Loans and advances	40	50	45	53	61
Other current assets	0	0	0	0	0
Total current assets	571	645	676	794	925
Sundry creditors and others	156	248	322	376	439
Provisions	18	23	8	8	8
Total CL & provisions	174	271	330	384	448
Net current assets	397	374	347	409	477
Net Deferred tax	-35	-36	-36	-36	-36
Misc expenditure	15	16	23	0	0
<b>Uses of funds</b>	<b>711</b>	<b>694</b>	<b>707</b>	<b>903</b>	<b>1,117</b>
Book value per share (INR)	392	38	45	56	69

**Cash flow statement****(INR crs)**

<b>Year to March</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17E</b>	<b>FY18E</b>
Net profit	34	54	70	109	137
Add: Depreciation	37	42	48	43	54
Add: Misc expenses written off	-1	-1	-7	23	0
Add: Deferred tax	10	2	0	0	0
Gross cash flow	80	96	111	175	190
Less: Changes in W. C.	66	-31	-30	55	64
Operating cash flow	14	127	141	120	126
Less: Capex	29	49	80	200	200
<b>Free cash flow</b>	<b>-15</b>	<b>79</b>	<b>60</b>	<b>-80</b>	<b>-74</b>

**Ratios**

<b>Year to March</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17E</b>	<b>FY18E</b>
ROAE (%)	13.3	20.4	24.3	31.2	31.8
ROACE (%)	12.9	12.0	16.5	21.3	21.8
Debtors (days)	84	97	92	92	92
Current ratio	3.3	2.4	2.1	2.1	2.1
Debt/Equity	1.6	1.6	1.3	1.3	1.4
Inventory (days)	84	75	66	66	66
Payable (days)	51	74	84	84	84
Cash conversion cycle (days)	118	97	74	74	74
Debt/EBITDA	3.4	3.3	2.3	2.3	2.3
Adjusted debt/Equity	1.6	1.6	1.2	1.3	1.3

**Valuation parameters**

<b>Year to March</b>	<b>FY14</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17E</b>	<b>FY18E</b>
Diluted EPS (INR)	51	8	10	16	20
<i>Y-o-Y growth (%)</i>	<i>59.3</i>	<i>(84.4)</i>	<i>28.1</i>	<i>56.0</i>	<i>25.4</i>
CEPS (INR)	104	14	17	22	27
Diluted P/E (x)	4.7	30.2	23.6	15.1	12.1
Price/BV(x)	0.6	6.3	5.3	4.3	3.5
EV/Sales (x)	0.5	1.7	1.4	1.3	1.2
EV/EBITDA (x)	4.5	15.8	11.9	9.6	8.0
Diluted shares O/S	0.7	6.9	6.9	6.9	6.9
Basic EPS	50.6	7.9	10.1	15.7	19.7
Basic PE (x)	4.7	30.2	23.6	15.1	12.1
Dividend yield (%)	0.6	0.7	1.3	2.0	2.5

## Annexure

### Pigment: An overview

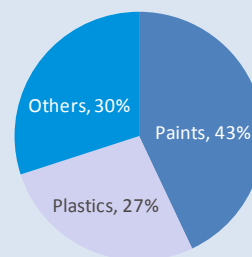
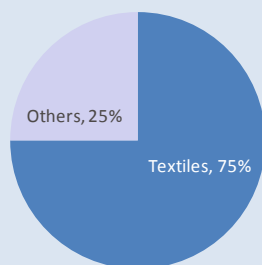
Pigment imparts colour to an object, which changes the colour of reflected or transmitted light as the result of wavelength-selective absorption. Majority of the pigments are ground into a fine powder and added to a binder (colourless material that suspends the pigment and lends adhesion to paint). Pigments are chemically and physically unaffected by the vehicle or the substrate on which it is applied. Key end-user industries are paints & coatings, plastics, inks, cosmetics and food.

Pigments differ from dyes as they are either themselves in liquid form or soluble in its vehicle, resulting in a solution. Dyes also have an affinity to the substrate on application and go through a process which, at least temporarily, destroys any crystal structure by absorption, solution and mechanical retention or by ionic or covalent chemical bonds. The textile industry is key end-user industry of dyes.

### Difference between dyes and pigments

	Dyes	Pigments
<b>Solubility</b>	Soluble in many liquids	Insoluble in water and most of the solvents
<b>Number</b>	Large number	Comparatively lesser in number
<b>Lightfastness</b>	Lower as lights destroy colored objects by breaking open electronic bonding within the molecule	More lightfast than dyes
<b>Product resistance</b>	Lower as compared to pigments	Very high
<b>Size</b>	Dye molecules are comparatively smaller compared to pigments	Pigment particles are about 1-2 microns in size
<b>Bonding</b>	Dye molecules have electrostatic charges that serve as a method for attaching the dye to the concrete	Pigment requires the help of a binder for gluing. As it is an inert substance which is merely suspended in a carrier/binder
<b>Imparting colors</b>	Dyes can impart color by selective absorption of the dyes	Pigments impart colors by either scattering of light or by selective absorption
<b>Combustible Properties</b>	Combustible	Non-combustible
<b>Longevity</b>	Do not last as long as pigments	Last longer than dyes

### Key Application Industries



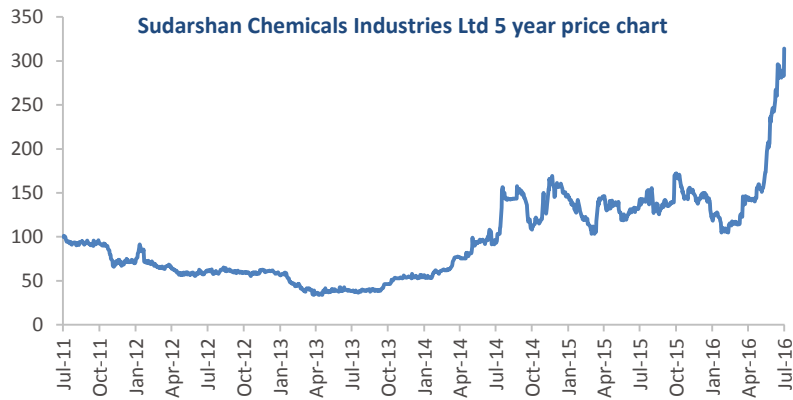
Source: Kolorjet Chemicals, Edelweiss Research

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Head Research

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Rating	Expected to
Buy	appreciate more than 25% over a 12-month period
Hold	appreciate up to 10% over a 12-month period
Reduce	depreciate more than 10% over a 12-month period



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