# Batlivala & Karani





#### 02 September 2015

# **Gujarat Fluorochemicals**

## BUY

# \_\_\_\_\_\_

Aiming high in PTFE!!!

Gujarat Fluorochemicals Limited (GFL), subsidiary of Inox Leasing and Finance Limited, was incorporated in 1987 and commenced operations in 1989 by setting up India's largest refrigerant plant. Over time, it has diversified into other businesses like PTFE resin and Chemicals. With large capacities already in place, GFL is looking forward to significantly improve its capacity utilisation, from present 60% to 100% over the next two-three years and is therefore likely to deliver robust earnings growth. We initiate coverage on GFL with a Buy rating and assign target price of Rs 865 (SOTP valuation).

Year to March	FY14	FY15	FY16E	FY17E	FY18E	CAGR (%)
P&L data (Rs mn)						(FY15-18E)
Revenues	11,409	13,210	14,815	17,988	20,980	16.7
EBITDA	1,898	2,823	3,639	5,037	6,423	31.5
Adjusted net profit	744	1,033	1,883	2,886	3,738	53.5
Margins (%)						
EBITDA	16.6	21.4	24.6	28.0	30.6	_
Adjusted net profit	6.5	7.8	12.7	16.0	17.8	_
Balance sheet (Rs n	nn)					
Total assets	36,529	40,698	41,608	43,437	46,017	4.2
Shareholders' funds	25,247	28,556	29,869	32,121	35,161	7.2
Per share data (Rs)						
Adjusted EPS	6.8	9.4	17.1	26.3	34.0	53.5
CEPS	16.0	20.7	30.2	39.7	47.9	32.3
Returns (%)						
RoCE	4.4	5.8	7.1	10.6	13.6	_
RoE	3.0	3.8	6.4	9.3	11.1	_

- O Ramp-up in the capacity utilisation from ~60% to 100% over the next twothree years coupled with improving mix towards higher grade PTFE would drive sales and earnings CAGR of 17% and 53%, respectively, over FY15-18E. Further, fully integrated PTFE facility would drive operating margin expansion from 21.4% to 30.6% by FY18E.
- O Increasing realisation in refrigerants and foray into fluorospeciality chemicals would further enhance financial performance in the coming years. GFL is focusing on HF and TFE molecules for pharma and agrochemicals.
- O GFL is looking at unlocking the value for minority shareholders and is expected to take appropriate step in the coming years. The company holds stake in listed companies' viz. Inox Wind (63.09%) and Inox Leisure (48.70%) and unlisted companies like Inox Renewables (100%).
- O Discounting subsidiaries value, the chemical business is attractively trading at 8.4x FY17E earnings thus providing healthy upsides.
- Currency volatility, aggressive pricing by Chinese competitors in some of the GFL's products remains key risk.

Ranjit Cirumalla ranjit.cirumalla@bksec.com +91-22-4031 7127

## **INITIATING COVERAGE**

## MID CAP

#### Share Data

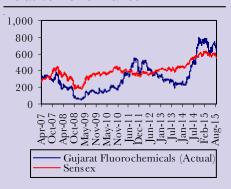
Market Cap.	Rs 75 bn (US\$ 1,1	32 mn)
Price		Rs 683
Target Price		Rs 865
BSE Sensex		25,696
Reuters	GF	ELR.BO
Bloomberg	G	FLC IN
6M avg. daily	turnover (US\$ mn)	1.1
52-week High	/Low(Rs) 8	17/483
Issued Shares		110 mn

## Valuation Ratios (Standalone)

Yr to 31 Mar	FY16E	FY17E	FY18E
EPS (Rs)	17.1	26.3	34.0
+/-(0/0)	82.2	53.3	29.5
PER(x)	39.9	26.0	20.1
Dividend/Yield	(%) 0.6	0.7	0.8
EV/Sales (x)	5.3	4.3	3.6
EV/EBITDA(x)	21.4	15.3	11.8
Shareholding	Pattern	(%)	
Promoters			68
FIIs			3
MFs			4

#### Relative Performance

Public & Others



25

#### © B&K Securities 2015

All Rights Reserved

Attention is drawn to the disclaimer and other information on the last page

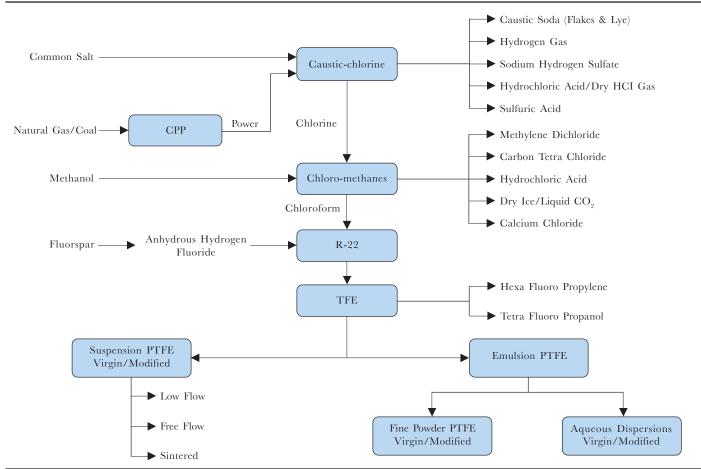
Index	Page No.
Investment arguments	3
Investment concerns	10
Outlook and valuation	11
Company background	14
Plants - Capacity	18
Business segments	19
Industry	24
Inox Wind	28
Inox Leisure	30
Financial analysis – Standalone	32
Financial analysis – Consolidated	34
Detailed financials	36

## Investment arguments

## Ramp-up in PTFE utilisation to provide significant delta in the next couple of years

GFL is the only Indian company which sensing sunset clause for refrigerant R22 gas decided to forward integrate into Polytetrafluoroethylene which is commonly known as PTFE. R22 gas is the feedstock for PTFE and therefore it was a natural forward integration for GFL. The company therefore collaborated with Chinese company for technology and embarked upon a greenfield facility at Dahej at Rs 26.0 bn which is now spread over ~110 acres. The company started operations in the year 2007. GFL in the recent past has gradually expanded PTFE capacity and is currently fourth largest player globally.

## Fully integrated facility of PTFE at Dahej



Source: Company, B&K Research

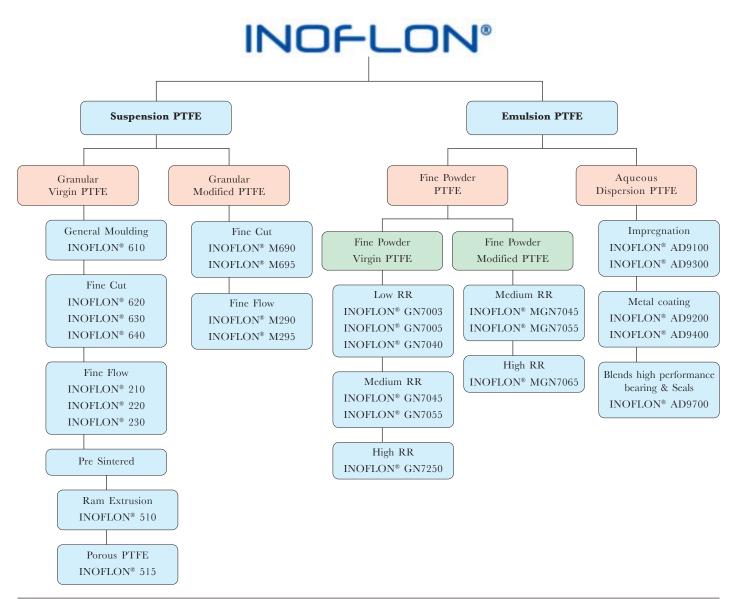
In order to ensure sufficient raw material availability GFL expanded its raw material capacity too. Fully integrated PTFE facility provides raw material self-sufficiency—Chlorine, Chloroform, HCFC 22, Power and AHF. The company enjoys uninterrupted access to Fluorspar, key raw material for PTFE, through ownership, joint ventures and long-term supply agreements.

#### Dahej capacity expansion

Capacity (MT)	2006	2010	2013
Caustic/Chlorine	60,000	120,000	135,000
Chloromethanes	50,000	100,000	110,000
PTFE	6,000	12,000	16,200

The company has worked on different grades of PTFE and as a result currently has an extensive product portfolio that caters to variety of industries. Further, the company is amongst the select few global PTFE producers which have access to PFOA free PTFE technology. Per Fluoro Octanoic Acid (PFOA) is a synthetic chemical compound causing harmful effect to humans. This is a strong advantage for the company against Chinese players in the US and EU markets where PFOA has been banned. GFL's plants have undergone stringent and long qualification process and audit by its customers. Typically, the product development and customer approval cycle is long extending up to 2-2.5 years. The products are also customised to specific application/needs of the customer and marketed under brand name "INOFLON".

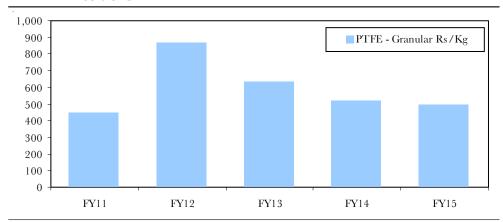
#### Product portfolio - PTFE



Source: Company, B&K Research

Granular PTFE is used in Automotive, Chemical, Mechanical and Semi conductors.
Aqueous dispersion PTFE is used in Industrial coatings (metal, glass and textiles).
Fine Powder PTFE is used in Automotive, Electrical, Electronics, Wires and Cables and Medical.

PTFE - Price trend



Source: Company, B&K Research

Price - Different grades of PTFE

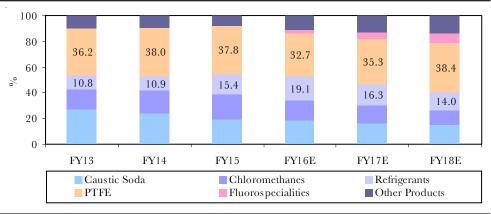
	Rs/kg	Premium to Granular (%)
PTFE-Granular	500	_
PTFE - Fine Powder	600	22.0
PTFE – Aqueous	750	50.0

Improving product mix and ramp-up in utilisation levels remains the key growth drivers. There is an upside risks to our numbers as a higher offtake of premium grade would lead to higher realisation and higher profitability.

**PTFE** sales

	FY13	FY14	FY15	FY16E	FY17E	FY18E
Capacity (mt)	16,200	16,200	16,200	16,200	16,200	16,200
Utilisation (%)	37.5	50.2	57.6	57.8	74.3	93.0
Sales (Rs mn)	3,926	4,390	5,027	5,199	6,798	8,580
Growth (%)	(40.6)	11.8	14.5	3.4	30.7	26.2

## Changing product mix



## Refrigerant business to be a growth driver too!!

GFL manufactures R22 class of refrigerant which is used in residential and commercial air conditioning. The gas is not used in automobile air conditioning; however, it is also used in Household Refrigerators. R22 class of refrigerant is under phase out due to its Global Warming Potential (GWP). Production is now restricted at average of 2009-10 levels with 10% cut in 2015 and complete phase out by 2030. With India's air conditioner market expected to rise owing to rapid increase in middle class households and supply been constrained, the company expects this segment to deliver healthy performance. The company does not manufacture R 134a grade of refrigerant (automobile air conditioning), however, it does trading of this gas in India.

Factors that are expected to sustain R22 consumption

- R410a is being looked at as an alternative; however, owing to its high GWP the usage is been limited in developed countries.
- High growth in ACs, Refrigerators from Asia is expected to drive demand for R22.
- R-22 is increasingly finding applications in pharma; however, it is still in the nascent stage.

## Channel checks reveals price rise in R22 gas

We have done extensive channel checks on Refrigerant R22 gas and came out with positives for Gujarat Fluorochemicals Ltd. (GFL). We have covered all the four main regions (metros) and had an interaction with both large and small dealers and distributors of various refrigerants.

#### Need for channel checks

HCFC-22 (also known as R-22) has been the refrigerant of choice for residential heat pump and air conditioning systems for more than four decades. Unfortunately for the environment, releases of R-22, such as those from leaks, contribute to ozone depletion. In addition, R-22 is a greenhouse gas and the manufacture of R-22 results in a by-product (HFC-23) that contributes significantly to global warming. Under the Montreal protocol, phase down of HCFC 22 (R22) for emissive purposes has begun from 01st January 2015 in developing countries including India. There will be a complete phase down of HCFC 22 by 2030. However, demand for air conditioners is on the rise, part of which will get catered to by R22 based air conditioners. Also, usage of HCFC 22 in non-emissive applications like feedstock for agro and pharma will continue. In addition, under the Ozone Depleting Substances (Regulations and Control) amendment rules, 2013, import of gas filled compressors for air conditioners and refrigeration equipment is prohibited from 01st July 2015. This would fuel a surge in demand for R22 from the domestic air conditioner manufacturers. This has resulted into demand supply mismatch leading to spike in prices of R22 gas.

Following were the key takeaways from our interactions

Prices of R22 gas have risen from Rs 350-380 per kg to upwards of Rs 500 in the last four-six months. In some of the places it is being sold at Rs 800 per kg. The average hike across regions was found to be in range of 20-30%.

• Currently there are no direct replacements available for R22 gas; however, with the slight modification in the equipment (at OEM level) other refrigerant like R410a and R32 could be substituted. R410a is being sold at Rs 500 per kg and R32 at Rs 480 per kg currently.

GFL manufactures R22 class of refrigerant which is used in residential and commercial air conditioning

Prices of R22 gas have risen from Rs 350-380 per kg to upwards of Rs 500 in the last four-six months

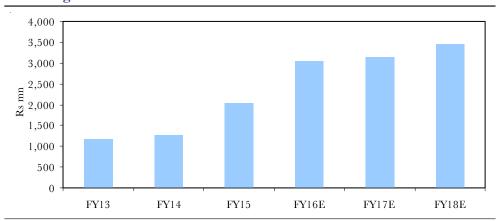
B&K Research September 2015

Most of the dealer opined healthy demand for R22 gas would continue in the coming years
as well and expect prices to rise further as and when the production cuts would get raised.
Some of the dealer's citied example of R12 gas which too was phased out. As per the
dealers, the prices of R12 gases were up 10x in the last year of its phase out.

- One domestic air conditioner typically requires 1-1.5 kg of gas to get refueled i.e. max of Rs 750 per machine, which is much lower as compared to the price of new OEM (upwards of Rs 35,000). Further ~70% of the demand for R22 is replacement demand and therefore the dealers expect current demand to sustain in the near future.
- New OEMs (air conditioners) are now coming up with a modified condenser wherein either R410 or R32 can be used. Therefore the incremental demand for R22 in the new air conditioners is expected to decline in future.
- Prices of R22 could soften a bit during 2Q as seasonality (monsoon) kicks in resulting into lower demand.
- R134a is currently being sold at Rs 380-400 per kg. The gas is used in automobile air conditioning. Almost all the dealers ruled out R134a as replacement to R22 gas.
- Currently there are no Indian manufacturers for R410 and R32 gas which is a replacement for R22.

GFL is expected to one of the key beneficiary of rise in R22 prices. Though the company has the highest capacity of R22 in India, it has sold only 12,000 MT in FY15 generating revenues of Rs 2.04 bn ( $\sim$ 15% of sales). This was on account of consumption of gas in PTFE (R22 is a feedstock for PTFE and for every 1 MT of PTFE, 2.2 MT of R22 is consumed). However, since the company would have produced  $\sim$ 31,000 MT (20,000 consumption + 11,000 selling) technically the 10% production cut would be imposed on production i.e. 31,000 MT.

#### R 22 refrigerant sales



Source: Company, B&K Research

Currently there are no Indian manufacturers for R410 and R32 gas which is a replacement for R22

Refrigerant sales to rise in future

## Entering into fluorospeciality chemicals

GFL is now focusing on HF and TFE molecules (fluorospeciality chemicals) which find application in pharma and agro chemicals and has accordingly set-up Multi Purpose plant. It is also forging partnerships with several MNCs in these segments who need access to fluorospeciality expertise and capabilities. The company is banking on the surplus TFE capacity from recent de-bottlenecking to add significant value to its fluorospeciality business. It intends to generate revenues of Rs 500 mn in FY16E by sale of these fluorospeciality chemicals. Though the business remains small, it has an immense potential provided the company is able to make significant inroads into customers.

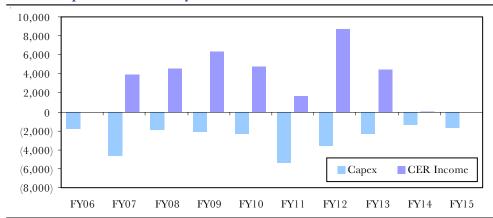
## Fluorospeciality chemicals

Name	Charactersitic
TFEDMA	TFEDMA Is thermally stable (up to 190C) nucleophilic fluorinating agent used to convert alcohol to alkyl fluorides, organic acids to acyl fluorides and sulphonic acids to sulfonyl fluorides. TFEDMA is highly moisture sensitive and requires inert atmosphere and proper handling to AVOID INGRESS OF ANY moisture.
Ethyl difluoroacetate	The ethyl difluoroacetate as a fine chemical product is mainly used in pharmaceutical intermediates, pesticide intermediates, widely used in acrylization oxidation and halogenating reaction of catalyst andso on. Ethyl difluoroacetate used in the manufacturing of microspheres, more particularly to a method forpreparing a polymeric microsphere. Also ethyl difluoroacetate is used in preparing pyrrazolo-pyrimidine derivatives.
Methyl tetrafluoroethy	Methyl tetrafluoroethyl ether, also called 1,1,2,2-Tetrafluoroethyl methyl ether, is an important organic product, and it is usuallyprepared by Tetrafluoroethylene as starting materials. Methyl tetrafluoroethyl ether is mainly used in the field of cleaning agent, pharmaceutical, chemical synthetic industry, and others. Globally, the consumption proportion of Methyl tetrafluoroethyl ether in its application areas are: 55% in cleaning agent, 35% in pharmaceutical, 5% in chemical synthetic industry, and 5% in others.
Hexafluoropropylene	Hexafluoropropylene is used for synthesizing many fluorinated chemicals Intermediates for agrochemical & Pharmaceutical industries.also used for flame Retardant chemicals and important fluoro rubbers.
HFIP	HFIP is a used as an intermediate for phamaceuticals and agrochemicals, as solvent or cleaner in electronics. In addition, HFIP finds use in analytical applications due to its ability to dissolve a variety of polymers including polyesters, polyamides, polyacrylonitriles, polyacetals, and hydrolyzed polyvinyl esters. Raw material in the preparation of the inhalation anesthetic Sevoflurane.
Tetrafluoropropanol	An important fluoride fine chemical mainly used as the solvent of dyestuff for CD-R/DVD-R disk; can also be applied to fabric finishing and as an intermediate of medicines and insecticides; will not harm the atmosphere and is the best substitute for Freon.

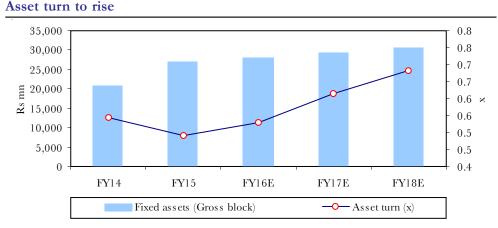
## Major capex behind, benefits to flow in now

With the majority of capex for expansion of PTFE capacity to 16,200 MT and corresponding increases in capacities across the entire value chain already incurred, the company is all set to reap the benefits of higher utilisation levels. Ongoing capex going forward is expected to be minimal and would be only towards de-bottlenecking and adding capacities in higher value-added products to the tune of Rs 1.0-1.5 bn per year. This would lead to free cash generation of Rs 5.5 bn in the next three years.

## Bulk of capex was funded by CER Income

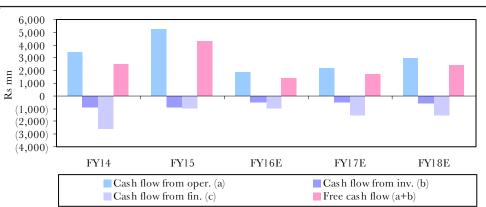


Source: Company, B&K Research



Source: Company, B&K Research

s de-bottlenecking Free cash flow to start



Source: Company, B&K Research

With the majority of capex for expansion of PTFE capacity to 16,200 MT and corresponding increases in capacities across the entire value chain already incurred, the company is all set to reap the benefits of higher utilisation levels

Ongoing capex going forward is expected to be minimal and would be only towards de-bottlenecking and adding capacities in higher value-added products to the tune of Rs 1.0-1.5 bn per year. This would lead to free cash generation of Rs 5.5 bn in the next three years

## Investment concerns

## Raw material availability

Fluorspar, methanol and chloromethanes are the key raw material for the company. In order to secure supply the company has formed JV with GMDC and Navin Fluorine for beneficiation of fluorspar ore from reserves located in Gujarat. Supply is expected to commence from FY17E.

## Rupee dollar parity

Since the company exports are pegged at 40% of its total revenues, it is exposed to the volatility in Rupee.

#### **INR USD**



Source: Bloomberg, B&K Research

## Aggressive pricing by Chinese competitors

China is a big player in refrigerant gases and PTFE and enjoys dominant market share. Therefore any aggressive pricing from Chinese players would impact GFL.

## Stringent effluent treatment norms

Chemical manufacturing inherently produces wastes/effluents that need to be treated before dumping into atmosphere/environment. Failing to do so could harm the ecological balance in the long-term. World over, the governments are taking cognizance of this fact and are coming out with stringent norms.

## Outlook and valuation

Presence in fluorine chemistry for the last 26 years has given the company an edge in catering to growing demand of fluorine-based molecules. Global fluorochemicals market is expected to reach US\$ 25 bn by 2020. Positive demand outlook from key application markets such as refrigeration, HVAC, pharmaceuticals and electronic consumables is expected to drive fluorochemicals sales over the next six years.

With the company ramping up its capacity utilisation in PTFE and benefits of higher realisation in R22 and foray into fluorospeciality chemicals, we expect GFL to deliver sales and earnings CAGR of 17% and 53%, respectively, over FY15-18E. Further, fully integrated PTFE facility with self-sufficiency in raw materials viz. Chlorine, Chloroform, HCFC 22, Power and AHF would drive operating margin expansion from 21.4% to 30.6% by FY18E.

We have valued the company on SOTP basis by assigning 15x multiple to the standalone earnings and valuing its listed subsidiaries at CMP. Despite giving 20% discount to subsidiaries value, the chemical business is attractively trading at 8.4x FY17E earnings thus providing healthy upsides. We initiate coverage with a Buy and target price of Rs 865.

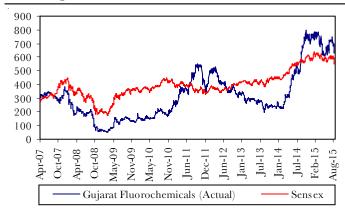
#### **SOTP** valuation

	Mar 16E	Mar 17E	Mar 18E
EPS (Rs)		26.3	34.0
Multiple (x)		15	15
Value (Rs) (a)		402	520
Mcap (Rs mn)		44,156	57,187
Value of subsidiaries			
1) Inox Leisure			
Current Mkt. Cap. (Rs mn)	21,920	21,920	21,920
GFL stake (%)	48.7	48.7	48.7
GFL value (Rs mn) (b)	10,675	10,675	10,675
2) Inox Wind			
Current Mkt. Cap. (Rs mn)	83,042	83,042	83,042
GFL stake (%)	63.1	63.1	63.1
GFL value (Rs mn) (c)	52,391	52,391	52,391
3) Inox Renewables Ltd.			
GFL stake (%)	100.0	100.0	100.0
Value at 10x PAT (Rs mn) (d)	493	542	596
Total subsidiaries value (Rs mn) (b+c+d)	63,559	63,608	63,662
Conglomerate discount (%)	20.0	20.0	20.0
Value after discount (Rs mn)	50,847	50,887	50,930
Value per share (Rs) (e)	463	463	463
Total value (Target price) (Rs) (a+e)	725	865	984
CMP (Rs)	683	683	683
Upside (%)	6.1	26.6	44.0
Discounting subsidaries value (Rs)	220	220	220
Chemical business is trading at (x)	12.9	8.4	6.5

#### Price movement

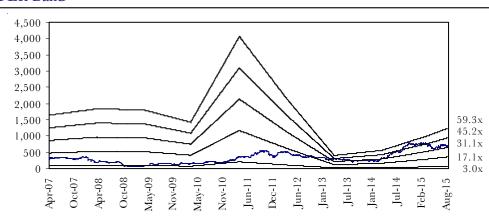
#### 900 800 700 600 500 400 300 200 100 0 Apr-08 Apr-07 Oct-08 Nov-09 May-10 Nov-10 Jun-11 Jun-12 Jan-13Jul-13Jan-14 Jul-14 Gujarat Fluorochemicals (Actual)

## Relative performance



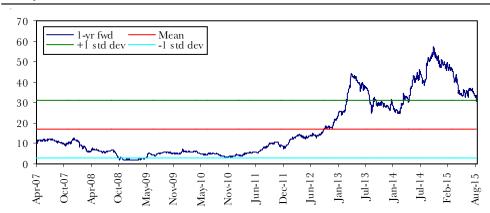
Source: B&K Research

#### **PER Band**



Source: B&K Research

## One-year forward PER Band



Source: B&K Research

# Valuation comparison with peers

······································												
Company	Rating	СМР	М Сар	Net	Sales (R	s mn)	1	EBITDA	(%)	Adjus	ted PAT (	Rs mn)
		(Rs)	(Rs mn)	FY15	FY16E	FY17E	FY15	FY16E	FY17E	FY15	FY16E	FY17E
Gujarat Fluorochemicals*	BUY	658	72,270	13,210	14,815	17,988	21.4	24.6	28.0	1,033	1,883	2,886
SRF	OP	1177	67,564	45,399	49,430	54,571	15.8	18.4	18.8	3,028	4,262	5,246
Navin Fluorine Intl	BUY	1198	11,702	5,900	6,841	8,010	12.2	13.4	15.3	546	666	863
Aarti Industries	BUY	416	34,687	28,614	29,288	34,133	16.0	18.1	17.9	2,024	2,506	3,007
Atul	BUY	1243	36,879	26,109	29,986	34,811	15.2	15.7	15.8	2,285	2,805	3,314
Company	Adju	isted EP	S (Rs)	Tota	l Debt (R	ks mn)	Net	debt/Eq	uity (x)		PER	
	FY15	FY16E	FY17E	FY15	FY16E	FY17E	FY15	FY16E	FY17E	FY15	FY16E	FY17E
Gujarat Fluorochemicals*	9.4	17.1	26.3	7,161	6,998	6,398	0.1	0.1	0.1	21.1	11.6	7.6
SRF	52.7	74.2	91.4	24,493	22,498	20,498	1.0	0.7	0.5	18.8	15.9	12.9
Navin Fluorine Intl	55.9	68.2	88.3	613	613	603	(0.0)	(0.0)	(0.0)	15.0	17.6	13.6
Aarti Industries	22.8	30.1	36.1	12,180	11,697	11,697	1.2	1.0	0.8	15.4	13.8	11.5
Atul	77.0	94.5	111.6	2,424	2,646	2,146	0.2	0.2	0.1	14.7	13.1	11.1
Company		<b>RoE</b> (%	)		RoCE (%	(o)	Price	Price/Book Value (x)			/Book Value (x) EV/EBITDA (x)	
	FY15	FY16E	FY17E	FY15	FY16E	FY17E	FY15	FY16E	FY17E	FY15	FY16E	FY17E
Gujarat Fluorochemicals*	3.8	6.4	9.3	5.8	7.1	10.6	0.8	0.7	0.7	9.0	6.8	4.8
SRF	14.1	17.6	18.9	11.0	12.8	14.5	2.5	2.6	2.3	11.1	9.6	8.1
Navin Fluorine Intl	9.5	10.9	13.0	11.6	13.4	16.0	1.4	1.8	1.7	11.0	12.6	9.4
Aarti Industries	21.4	22.8	23.0	15.8	16.5	17.8	3.1	2.9	2.4	9.2	8.6	7.6
Atul	24.1	23.8	22.8	26.4	28.6	28.7	3.2	2.8	2.3	8.8	8.2	6.8

<sup>\*</sup>Standalone. **Note:** OP – Outperformer.

B&K Research September 2015

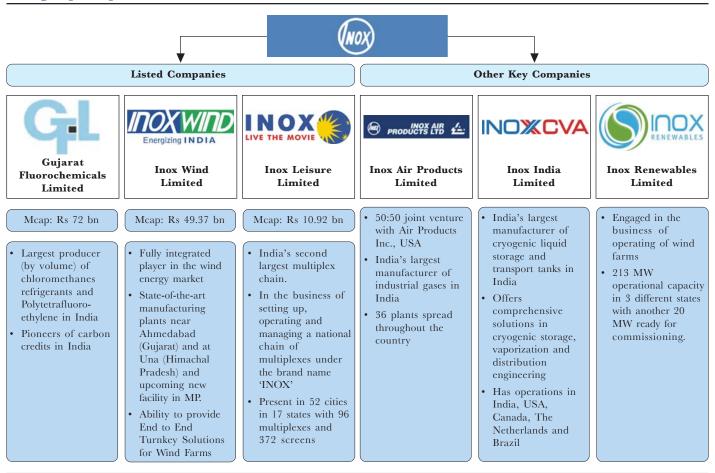
## Company background

GFL is a part of Inox Group of Companies, was incorporated in 1987 and commenced commercial operations in 1989 to manufacture refrigerant gases at Ranjitnagar in Gujarat. The company later diversified into other businesses like PTFE resin, Chemicals, Carbon Trading and Entertainment (Multiplexes). In 2007, GFL forward integrated into the PTFE business and within a short span of time became a significant player in the global market. With a capacity of 16,200 TPA the company not only enjoys domestic market share of ~70% in Indian PTFE market but also ranked among top four PTFE suppliers globally. The company has a diverse customer base across various industries with its largest customer accounting for less than 5% of total sales. GFL has also derived rich benefits from carbon credits. The company has been the largest Clean Development Mechanism (CDM) player in India and amongst the top 5 players globally.

## **Inox Group**

Inox Group is a family owned, professionally managed business group having diverse businesses spread across Industrial Gases, Refrigerants, Chemicals Cryogenic Engineering, Renewable Energy and Entertainment. The Group employs more than 8,000 people at more than 100 business units across the country, and has a distribution network that is spread across more than 50 countries around the globe.

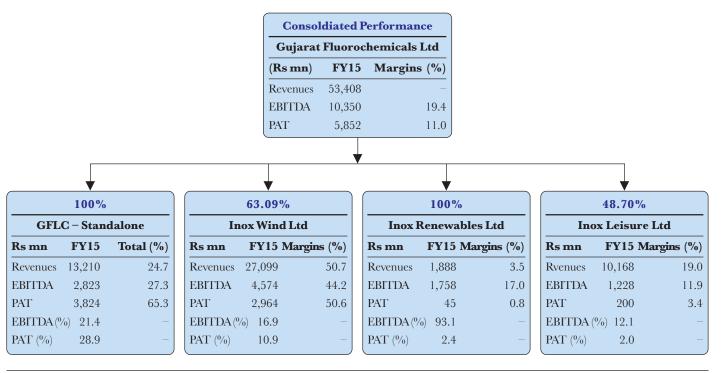
#### Inox group companies



## Major Inox Group Companies, other than GFL, include:

Inox Air Products Limited	Amongst India's largest industrial gas company - a 50:50 joint venture with Air Products Inc. of the United
	States, amongst the world's largest industrial gas players.
Inox India Limited	India's largest cryogenic technology company.
Subsidiaries of GFL include:	
Inox Leisure Limited	Amongst India's largest and, fastest growing multiplex chain.
INOX Wind Limited	India's fastest growing and most profitable wind energy company.
Inox Renewables Limited	A leading wind farm company.
Gujarat Fluorochemicals	Engaged in the business of processing and marketing of PTFE products manufactured by GFL, in United
Americas LLC	States of America.
Gujarat Fluorochemicals GmbH	Engaged in business of trading as well as import and export, processing, distribution, marketing and storage
	of polymers and organic and inorganic compounds, especially Poly Tetra Fluoro Ethylene (PTFE grades) and
	to provide after sales service as well as technical support to its German and EU customers.
Step-down subsidiaries of GFL	include:
Inox Wind Infrastructure	Engaged in the business of providing of EPC services, O&M services and setting up infrastructure facilities
Services Limited	for implementation and operation of wind farms.
Inox Renewables (Jaisalmer) Limited	Engaged in the business of operating of wind farms.

## Financial performance of GFL (Consolidated) and its subsidiaries



B&K Research September 2015

#### Vision

#### PTFE business

• To become the preferred suppliers of PTFE resin globally and achieve this status through technological, operational and service excellence.

• To rapidly expand capacities and diversify into other fluoropolymer resins.

## Refrigerants business

- To increase competitiveness and focus on HCFC production owing to mandated phasing out of CFCs under Montreal Protocol.
- To continue commitment to provide customers value for money by producing world-class refrigerant gases at the most competitive price, while maintaining a steady strategy for future expansions/diversification.

#### **Mission**

- Shall endeavour to always be the market leaders, by providing customers, the latest, the
  most innovative and the best available technologies, products and services.
- Shall always measure success on the basis of how much money is saved for customer, rather than how much is earned from them.

#### **Board of Directors**

#### Mr Devendra Kumar Jain - Chairman

Mr Devendra Kumar Jain is a graduate in History (Hons.) from St. Stephens College, Delhi, possesses over 55 years of rich experience in business management and international trade. He has been a member of the Indian National Committee of the International Chamber of Commerce and has been an Associate Member of the World Economic Forum, Geneva.

## Mr Vivek Kumar Jain - Managing Director

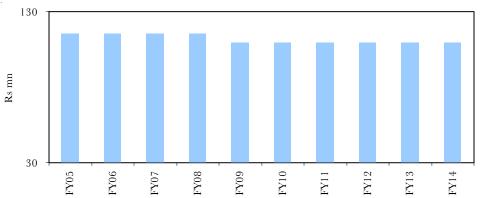
Mr Vivek Kumar Jain is a graduate of Commerce from St. Stephens College, Delhi and also has a post graduate degree in Business Administration from the Indian Institute of Management, Ahmedabad. He has over 34 years of rich business experience in setting up and managing several businesses. Mr Vivek Jain is Managing Director of Gujarat Fluorochemicals Limited (GFL) since its inception.

#### Mr Deepak Asher - Director and Group Head & Corporate Finance

Mr Deepak Asher graduated in Commerce and Law, and is a Chartered Accountant and a Cost Accountant by profession. He has been associated with the Inox Group for almost 25 years now, in different capacities. He has been responsible for spearheading the Group's diversification into the cinema and CDM businesses, and now the wind energy business.

Buy-back of 5.93 mn shares @ Rs 103.5 in FY09

# Equity capital



Source: Company, B&K Research

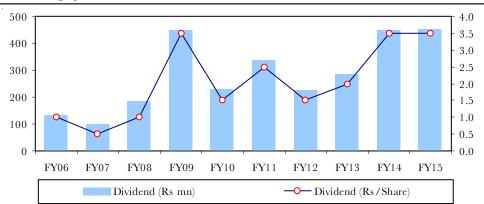
## Promoter's stake

71 70 69 68 67 66 65 64 FY10FY12 FY14 FY15FY05FY06FY13 FY08FYII

Board on 17 January 2015 approved removal of one of the shareholder from the promoter group

Source: Company, B&K Research

## Dividend payout



# Plants - Capacity

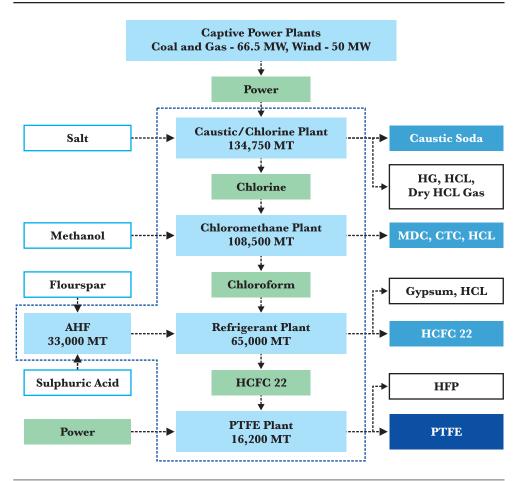
## Ranjitnagar Complex

GFLC, subsidiary of Inox Leasing and Finance Limited, was incorporated in 1987 and commenced commercial operations in 1989 by setting up India's largest refrigerant plant in Ranjitnagar. It is a HCFC-22 manufacturing facility located at approximately 200 kms from Dahej Complex. This facility is ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certified by Intertek.

## Dahej Complex

It is a modern and completely backward-integrated unit of PTFE resins located on the west coast of India at Dahej, Gujarat. This facility is spread over of 110 acres and forms part of the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR). Dahej Complex started its operations in the year 2007. The facility is ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certified by Intertek. Manufacturing processes are controlled by modern DCS systems and operations are running on SAP ERP system.

#### Total plant capacity



Source: Company, B&K Research

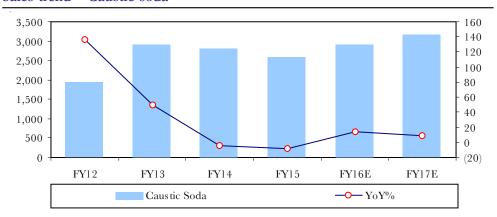
AHF: Anhydrous Hydrogen Fluoride, HG: Hydrogen Gas, HCL: Hydrochloric Acid, MDC: Methylene DiChloride, CTC: Carbon Tetra Chloride, HCFC: Hydro Chloro Fluoro Carbons, HFP: HExa Fluoro Propylene, PTFE: Poly Tetra Fluoro Ethylene.

## **Business segments**

#### Chemicals business

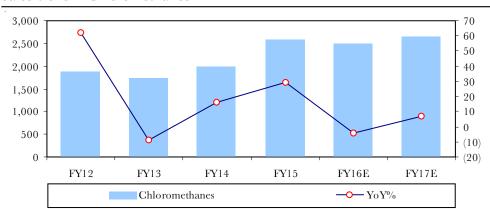
GFL's chemical complex commenced operations in the year 2007 at Dahej, Gujarat. It has grown to become a highly integrated and technologically advanced chemical complex which comprises of a 134,750 tpa Caustic Soda/Chlorine plant, a 108,500 tpa Chloromethane plant and combined coal and gas based captive power plant with a capacity of around 90 MW.

#### Sales trend - Caustic soda



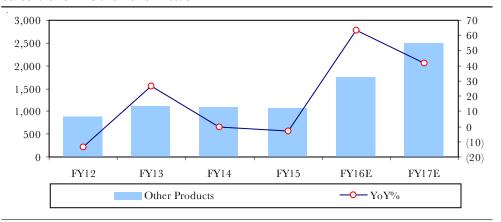
Source: Company, B&K Research

#### Sales trend - Chloromethanes



Source: Company, B&K Research

#### Sales trend - Other chemicals



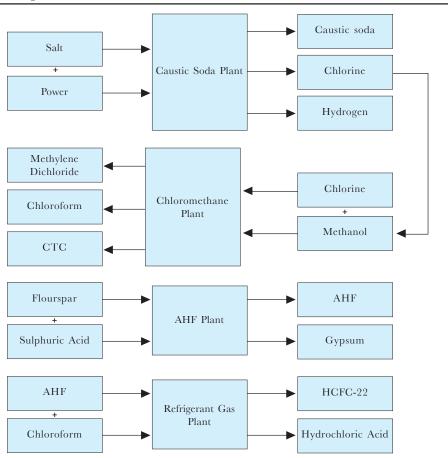
Other chemicals include sales of Hydrogen, Chlorine, AHCL, Calcium Chloride, Carbon Dioxide, Micronised Powder and other by products

## Refrigerants

GFL manufactures HCFC22 at its Ranjitnagar plant at Gujarat. HCFC22 is a product used as a refrigerant and as feedstock in the manufacture of PTFE. It is manufactured in technical collaboration with M/s Pennwalt Corporation, USA (now Atochem, North America), under the "Refron" brand name. With an installed capacity of over 65,000 TPA, GFL has successfully marketed its brand "REFRON" to over 75 countries worldwide for the past 15 years. It is the only refrigerant gas producer who is backed up with an 100% export oriented unit for manufacturing disposable cylinders of various capacities as per international standards especially for the export markets.

In line with its expansion plans, GFL is considering to enter the more eco-friendly domain of CFC free refrigerants segment comprising of 404a, 407c, 410a. It has made a beginning with 134a, which is being aggressively marketed along with the other bouquet of products.

HCFC 22 process flow



Source: Industry, B&K Research

## Brief on refrigerant gases

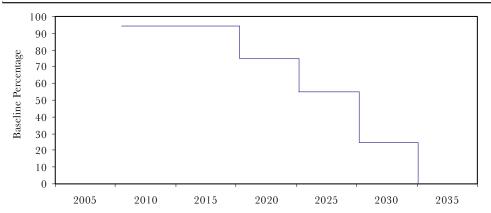
Refrigerant gases are used for cooling purpose and therefore find application in air conditioners and refrigeration's. These gases have evolved over the years and also faced phased outs due to their ozone depleting potential and now owing to their global warming potential. Earlier, gases like methyl chloride, sulphur dioxide were used as refrigerants. In 1930s, chlorofluorocarbons (CFCs) dominated the market, however due to their ozone depleting potential; they were phased out and replaced by HCFCs in 1950s. Over the years, HCFCs were also discovered as been harmful to environment and currently are been replaced by HFCs. HCFCs are already phased out in developed countries and are been phased out in developing countries (by 2030). HFCs, the next generation gases are been seen as viable substitutes. However, owing to their global warming potential, developed countries are currently contemplating to replace it by HFOs. Duponts' HFO-1234YF is been encouraged as viable alternative.

Details of refrigerant gases

Туре	Name	Energy	Ozone Depletion	Global Warming
		efficiency (COP)	Potential (ODP)	Potential (GWP)
CFC	CFC - 11	6.6	1.00	5.0
GFG	CFC - 12	6.3	1.00	11.0
HCEC	HCFC - 22	6.1	0.050	1.7
HCFC	HCFC - 123	6.5	0.025	0.5
	HFC - 134A	6.2	_	1.3
	HFC - 410A	5.8	_	2.1
HFC	HFC - 32	5.9	_	0.8
	HFC - 152A	6.3	_	0.1
	HFO - 1234YF	6.0	_	_
	Propane	6.1	_	_
Others	Carbon dioxide	6.3	_	_
	Ammonia	6.3	_	_

Source: Industry, B&K Research

## Phase out of R22 gas



Source: Industry, B&K Research

## Fluoropolymers/PTFE

GFL attained a key milestone in 2007, when it commissioned India's largest PTFE plant. PTFE is an extremely specialised engineering plastic, and only a select few firms the world over have the technology for PTFE manufacture. With its backward integration right up to caustic soda, hydrofluoric acid and captive power, GFL is one of the world's most integrated PTFE producers. GFL has an installed capacity of 16,200 TPA PTFE, covering a broad product portfolio of granular virgin and modified PTFE resins, fine powder virgin and modified PTFE resins, PTFE based aqueous dispersions and PTFE micro powders.

To strengthen its physical presence in the strategic markets, GFL has incorporated subsidiaries – GFL Americas and Gujarat Fluorochemicals GmbH. GFL Americas operates its own blending facility and warehouse at Rockdale, USA and caters to PTFE and PTFE compounds customers in USA and Latin American countries. Gujarat Fluorochemicals GmbH operates from Hamburg, Germany to service PTFE customers in European territory.

With the introduction of PFOA free PTFE resins and dispersions in the year 2013, GFL has emerged amongst a handful of the world's major players offering PFOA free products. Per Fluoro Octanoic Acid (PFOA) is a synthetic chemical compound causing harmful effect to humans.

## Different grades of PTFE

	Properties
	Low di-electric constant and loss factor
	Extremely low coefficient of friction
	Broad range of service temperature ( -250°C to 250°C )
Granular PTFE	Inherent UV resistance
	Excellent chemical resistance
	Low smoke and flammability resistance
	FDA compliance for food contact
	Low friction and non stick surface
	Excellent di-electric properties
Fine Powder PTFE	Chemically inert to most industrial chemicals and solvents
	Good balance of mechanical properties and processability
	Good surface finish
	PFOA free
	High gloss
	Excellent film forming properties
Aqueous Dispersion PTFE	Excellent wetting properties
	Excellent chemical resistance
	Improved hardness
	• Broad range of Service temperature: -250°C to +250°C

PTFE - Application and usage

Resin Type	Grade	<b>Processing Technique</b>	Applications
	INOF-LON® 630	Compression Molding	Thin films & compounding. Machined parts with minimal thickness of 40 $\mu m$
	INOF-LON® 640	Compression Molding	Thin films & compounding. Machined parts with minimal thickness of 30 µm
	INOF-LON® 210	Compression Molding & Isostatic Molding	All applications & machined parts with minimal thickness of 500 µm
Granular Virgin PTFE	INOF-LON® 220	Compression Molding, Isostatic Molding, Automatic Molding & Ram-extrusion of thicker cross sections	All applications & machined parts with minimal thickness of 500 μm
	INOF-LON® 230	Compression Molding & Isostatic Molding	All applications & machined parts with minimal thickness of 300 µm
	INOF-LON® 510	Ram-extrusion	Extruded rods, tubes & profiles
	INOF-LON® 515	Compression molding	Highly-porous sintered & machined PTFE parts
	INOF-LON® M690	Compression Molding	Thin films & compounding. Machined parts with minimal thickness of 30 µm
Granular Modified PTFE	INOF-LON® M695	Compression Molding	Thin films & compounding. Machined parts with minimal thickness of 30 µm
	INOF-LON® M290	Compression Molding, Isostatic Molding, Automatic Molding & Ram-extrusion of thicker cross sections	All applications & machined parts with minimal thickness of 500 µm
	INOF-LON® M295	Compression Molding, Isostatic molding, Automatic molding & Ram-extrusion of thicker cross sections	All applications & machined parts with minimal thickness of 500 µm
	INOF-LON® FP7003	Paste extrusion	Large diameter pipe liners, tapes and membranes
	INOF-LON® FP7005	Paste extrusion	Yarns, pipe liners and electrical grade tape
Fine Powder			Liners, thread sealant tape,
Virgin PTFE	INOF-LON® FP7010	Paste extrusion	electrical grade tapes, gaskets, etc
	INOF-LON® FP7040 /® GN7040*	Paste extrusion	Sealant thread tape, tubes, pipe liners, cables, expanded sealants etc.
	INOF-LON® FP7045	Paste extrusion	Pipe liners, tapes and tubes
Fine Powder	INOF-LON® MGN7045*	Paste extrusion	High-end tubes for demanding applications requiring excellent ex- life, low permeability, transparency. Also suitable for some electrical grade tape applications
Modified PTFE INOF-LON® MGN7055*		Paste extrusion	High end tubes with excellent ex life, low permeability& transparency
	INOF-LON® AD9100*	Impregnation	Architectural fabric & gaskets, packing seals & gaskets, industrial fabric, yarns & filter cloth
Aqueous	INOF-LON® AD9200*	Formulation of Coating System	Low friction and non-stick surface for cookware and industrial parts
Dispersion PTFE	INOF-LON® AD9300*	Impregnation, Formulation of Coating System & Blends with Polymeric and Non-polymeric Materials	Architectural fabric & gaskets, packing seals, Industrial fabric, yarns & filter Cloth, low friction and non-stick surface for cookware & industrial parts, flame non-drip plastics

## **Industry**

## **Fluorine**

Fluorine atom is an extremely reactive and poisonous elemental gas. However, its compounds are known to be best inert and stable as well. It is this characteristic of fluorine which helps it to find more and more applications. Fluorine is the 24th most abundant element in the known universe and the 13th most abundant within the earth's crust. Primary mineral source of fluorine is fluorite. About half of mined fluorite is used directly in steel-making while other half is converted to hydrogen fluoride (HF) which is the precursor to many fluorochemicals.

Fluorine finds its usage right from Toothpaste to Teflon (cookware coating), rocket fuel, refrigeration, pharma and agrochemicals. The most important end-use segments of the fluorine economy are steel pickling, aluminum smelting, fluoropolymers and fluorochemicals.

The steel industry is a sizeable user of HF in so-called "pickling" lines, where steel is stripped of any surface corrosion or contamination by an acid bath. Metspar is often added to furnaces making steel to help lower the melting point and save money otherwise spent on energy.

Cryolite and Aluminum fluoride are used during the production of aluminum, as they melt at much lower temperatures than aluminum oxide (Al2O3) and also dissolve aluminum oxide and make it possible to electrolytically extract aluminum metal, consuming much less energy than would be required otherwise.

Well-known fluoropolymer is Dupont's Teflon, a compound properly known as polytetrafluoroethylene, or PTFE. The use of Teflon is gaining traction with consumers in India and China increasingly using Teflon-coated cookware and kitchen utensils. Fluoropolymer like Poly-vinylidenefluoride (PVDF) is also used in lithium batteries. Along with PVDF, a polymer known as fluorinated ethylene propylene (FEP) is used in the jackets of fibre optic cables.

Refrigerants like chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) and hydrofluoroolefins (HFOs) are termed as Fluorochemicals.

## Fluorspar

Fluorspar is the commercial name for the mineral fluorite (calcium fluoride:CaF2), which when pure, consists of 51.1% calcium and 48.9% fluorine. Fluorine represents around 0.06 to 0.09% of the earth's crust and predominantly occurs in the mineral fluorspar. Commercial fluorspar is graded according to quality and specification into acid grade, metallurgical grade and ceramic grade. Acidspar is the highest grade form of fluorspar and has the highest indirect use in downstream industry. Fluorspar is the dominant source for chemical element Fluorine (F) and due to Fluorine's extreme chemical properties; it is largely irreplaceable in its use.

Metallurgical grade (metspar) = 60-85% CaF2 with a limit on silica content and is used as a fluxing agent in the making of steels. In essence, the addition of metspar lowers the melting point of steel by an appreciable amount, making steel far less expensive to manufacture.

Ceramic grade = 85-96% CaF2 is used to make certain glasses and ceramics. Given the chemical stability of compounds containing F, these materials are able to withstand high temperatures without issue, and include cookware, labware and the like.

Inorganic fluorochemicals

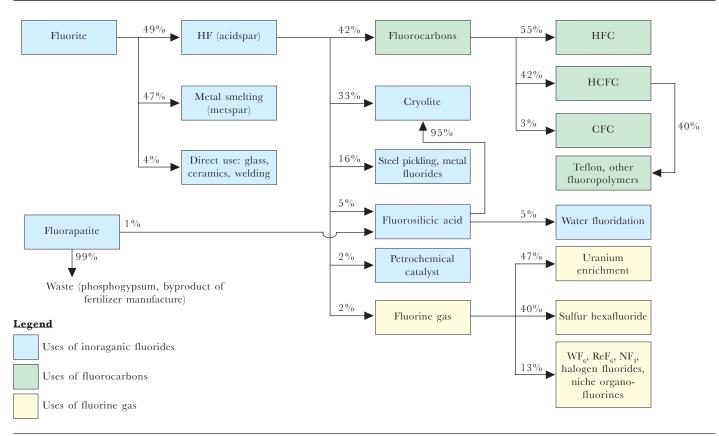
**Fluoropolymers** 

Fluorocarbons

Acid grade (acidspar) = 97%+ CaF2, Acidspar is so called because it is converted to hydrofluoric acid (HF), the basic starting point for almost all fluoro chemistry. Acidspar is also the starting point for the creation of one of the key compounds used in the smelting of aluminum, aluminum fluoride (AlF3). Aluminum refining is a major consumer of acidspar.

The largest acid-spar consuming regions outside of China are Western Europe, Canada and USA, collectively importing more than 900,000 tonnes of acid-spar per year. The uncertainty of Chinese acid-spar supply has resulted in increasing pressure on these regions to secure long-term sources and recent upstream merger and acquisition integration in the industry reflects this position.

#### Fluorine chain



Source: Industry, B&K Research

## Poly Tetra Fluoro Ethylene (PTFE)

## Discovery of Du Pont®'s Teflon®

The history of POLY TETRA FLUORO ETHYLENE (PTFE) began on 06 April 1938 at Du Pont®'s Jackson Laboratory in New Jersey. Dr Roy J. Plunkett, who was working with gases related to FREON refrigerants, discovered that one sample had polymerised spontaneously to a white, waxy solid.

Testing showed that this solid was a very remarkable material. It was a resin that resisted practically every known chemical or solvent; its surface was so slippery that almost no substance would stick to it; moisture did not cause it to swell, and it did not degrade or become brittle after long term exposure to sunlight. It had a melting point of 327°C and, as opposed to conventional thermoplastics; it would not flow above that melting point.

B&K Research September 2015

Borrowing techniques from powder metallurgy, Du Pont ® engineers were able to compress and sinter POLYTETRAFLUOROETHYLENE – PTFE resins into blocks that could be machined to form any desired shape. Later, dispersions of the resin in water were developed to coat glass-cloth and make enamels. A powder was produced that could be blended with a lubricant and extruded to coat wire and manufacture tubing.

## Basic production process of PTFE polymer

The manufacturing of PTFE Polymer/Resin is basically carried out in two stages. First, TFE Monomer is generally manufactured by synthesis of Calcium Fluoride (Fluorospar), Sulphuric Acid and Chloroform and later polymerisation of TFE is carried out in carefully controlled conditions to form PTFE. Due to presence of stable and strong C-F bonds, PTFE molecule possesses outstanding chemical inertness, high heat resistance and remarkable electrical insulation characteristics; in addition to excellent frictional properties.

## Applications of PTFE polymer

The major application of PTFE, consuming about 50% of production, is for wiring in aerospace and computer applications (e.g. hookup wire, coaxial cables). This application exploits the fact that PTFE has excellent dielectric properties. This is especially true at high radio frequencies, making it suitable for use as an insulator in cables and connector assemblies and as a material for printed circuit boards used at microwave frequencies. Combined with its high melting temperature, this makes it the material of choice as a high-performance substitute for the weaker and lower-melting-point polyethylene commonly used in low-cost applications.

In industrial applications, owing to its low friction, PTFE is used for applications where sliding action of parts is needed: plain bearings, gears, slide plates, etc. In these applications, it performs significantly better than nylon and acetal; it is comparable to ultra-high-molecular-weight polyethylene (UHMWPE). Its extremely high bulk resistivity makes it an ideal material for fabricating long-life electrets, useful devices that are the electrostatic analogues of magnets.

Teflon film is also widely used in the production of carbon fibre composites as well as fiberglass composites, notably in the aerospace industry. Teflon film is used as a barrier between the carbon or fiberglass part being built, and breather and bagging materials used to incapsulate the bondment when de-bulking.

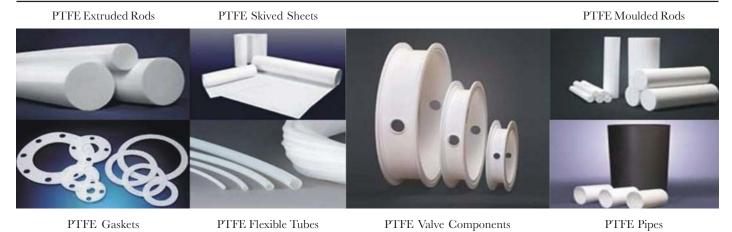
PTFE has unique and versatile properties. Some of them are as follows:

- Chemical inertness, resistance to solvents and insoluble in all solvents up to 260°C. Certain high fluorinated oils swell and dissolve PTFE at temperature close to crystalline melting point.
- Wide operating temperature range -250°C to +260°C, at atmospheric pressure.
- Lowest coefficient of friction among all known metals and non-metals.
- Nontoxic and anti-stick properties, negligible water absorption and non-flammable.
- Resistance to radiations, electrical properties remain practically unchanged during and after irradiation, both in air and vacuum.
- Excellent weathering resistance and outstanding electrical/insulating properties over wide frequency range.

## PTFE - User industries

Industries	Functions	Forms
Automotive	Mechanical property, thermal property, chemical property, and friction property	O-rings, Gaskets, Value stem seals, Shaft seals, Linings for fuel hoses, power steering and transmission
Chemical industry	Chemical resistance, mechanical property, thermal property, and weather stability	Coatings for heat exchangers, pumps, diaphragms, impellers, tanks, reaction vessels, autoclaves, containers, flue duct expansion joints, heavy wall solid pipe and fittings
Electrical/Electronic	Dielectric constant, flame resistance, and thermal stability	Electrical insulation, flexible printed circuits, ultra pure components for semiconductor manufacture
Architectural and domestic	Weatherability, flame retardancy, friction property, thermal stability	Water repellent fabric, architectural fabric, non stick coatings for cookware, and fiberglass composite for constructions.
Engineering	Mechanical property, thermal stability, chemical stability, weatherability, and surface energy.	Seats and plugs, bearings, non-stick surfaces, coatings for pipes, fittings, valve and pumps parts, and gears.
Medical	Surface energy, biological stability, mechanical property, chemical resistance.	Cardiovascular grafts, ligament replacement and heart patches.

## **Products**





PTFE Bridge Bearing Pads PTFE Bellows PTFE Moulded Bushes PTFE Moulded Sheets

B&K Research September 2015

## **Inox Wind**

Inox Wind Ltd. (IWL) is among the leading wind-turbine-generator (WTG) suppliers operating from India and is well positioned to capture the upcoming growth opportunities in the wind sector post government's renewed focus on renewable energy. Government intends to grow renewable power from the current capacity of 33 GW to 175 GW by FY22, representing capacity addition by a CAGR of 27% across next seven years. Government's focus towards renewable energy augurs well for companies like IWL which is expanding its capacities to meet the incremental demand. IWL is capable of providing end-to-end solution for corporate entities, which are setting up wind power to meet their CSR obligations. IPO of the company was in the month of April 2015 at a price of Rs 325 per share.

#### **About Inox Wind Ltd.**

- O Inox Wind Ltd. is a fully integrated player in the wind energy market and manufactures Wind Turbine Generators, blades and towers. IWL was incorporated in 2009 and dispatched its first WTG in March 2010.
- O Manufacturing: IWL has manufacturing plants at Una (Himachal Pradesh) for hubs and nacelles and near Ahmedabad (Gujarat) for blades and towers. IWL has a team of 900 employees across divisions. The company sources gearboxes, electric control systems (ECS) and generators from external suppliers.
- O **Complete solutions offering:** IWL provides turnkey solutions to wind farm investors, by supplying WTGs, blades and towers and the complete range of services including erection and commissioning, and also long-term operations and maintenance.
- O Product rating: IWL's 2 MW wind turbines have been designed and developed for low wind sites based on the technology license from AMSC Windtec, Austria (a 100% subsidiary of AMSC, USA). The company has a perpetual licence from AMSC, based in Austria, for the production and sale of 2 MW WTGs in India and abroad.

Supportive policy framework supports demand for renewable energy. The government's target for FY22 is 175 GW from 33 GW, representing capacity addition by robust CAGR of 27% for the next seven years. In order to provide impetus to the sector, government has introduced measures such as generation-based incentives, accelerated depreciation and renewable energy certificates; more recently, it has given renewable priority-sector status to ensure cheaper funding. The amendment to the Electricity Act (approved by the cabinet and pending approval in parliament) has proposed (1) forming a National Renewable Energy policy, (2) mandating at least 10% of total power generated by thermal plants to come from renewables. Wind power capacity addition in India saw 15% CAGR during FY06-15 supported by favourable policy environment. However, it took a setback in FY13, when the government removed accelerated depreciation (AD) benefit. However, With AD benefits being reintroduced, it provided much needed impetus to the wind power developers operating from India.

## **Inox Wind**

Income Statement						
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15		
Net sales	6,216	10,589	15,672	27,099		
Growth (%)	764.3	70.3	48.0	72.9		
Operating expenses	(4,638)	(8,220)	(12,803)	(21,353)		
Operating profit	1,578	2,369	2,869	5,746		
EBITDA	1,578	2,369	2,869	5,746		
Growth (%)	1,037.7	50.1	21.1	100.3		
Depreciation	(76)	(89)	(116)	(204)		
EBIT	1,502	2,280	2,753	5,542		
Finance cost	(204)	(387)	(460)	(623)		
Profit before tax	1,298	1,894	2,293	4,920		
Tax (current + deferred)	(187)	(33)	44	(928)		
P/(L) for the period	1,112	1,861	2,337	3,992		
Reported Profit/(Loss)	1,112	1,861	2,337	3,992		
Adjusted net profit	1,112	1,861	2,337	3,992		
Growth (%)	1,561.3	67.4	25.6	70.8		

Balance Sheet						
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15		
Share capital	300	400	2,000	2,219		
Reserves & surplus	1,049	2,556	2,270	11,700		
Shareholders' funds	1,349	2,956	4,270	13,919		
Non-current liablities	1,379	3,563	4,955	8,435		
Long-term borrowings	1,203	3,367	4,804	8,450		
Other non-current liabilities	176	195	151	(15)		
Current liabilities	1,361	2,983	5,575	9,594		
Other current liabilities	1,361	2,983	5,575	9,594		
Total (Equity and Liab.)	4,089	9,502	14,800	31,948		
Non-current assets	1,424	1,607	2,516	2,519		
Fixed assets (Net block)	1,424	1,607	1,993	2,519		
Non-current Investments	0	0	450	0		
Other non-current assets	0	0	72	0		
Current assets	2,665	7,895	12,284	29,429		
Cash & current investment	390	15	40	7,096		
Other current assets	2,275	7,880	12,244	22,333		
Total (Assets)	4,089	9,502	14,800	31,948		
Total debt	1,203	3,367	4,804	8,450		
Capital employed	2,728	6,518	9,225	22,355		

Cash Flow Statement					
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15	
Profit before tax	1,298	1,894	2,293	4,920	
Depreciation	76	89	116	204	
Change in working capital	(738)	(3,982)	(1,773)	(6,070)	
Total tax paid	(11)	(13)	0	(1,093)	
Others	204	387	460	623	
Cash flow from oper. (a)	830	(1,626)	1,096	(1,417)	
Capital expenditure	(374)	(271)	(503)	(730)	
Change in investments	0	0	(450)	450	
Others	0	(0)	(72)	72	
Cash flow from inv. (b)	(374)	(272)	(1,025)	(207)	
Free cash flow (a+b)	456	(1,898)	71	(1,624)	
Equity raised/(repaid)	0	100	1,600	219	
Debt raised/(repaid)	237	2,164	1,437	3,646	
Others	(317)	(741)	(3,082)	4,815	
Cash flow from fin. (c)	(80)	1,523	<b>(46)</b>	8,680	
Net chg in cash (a+b+c)	375	(375)	25	7,056	

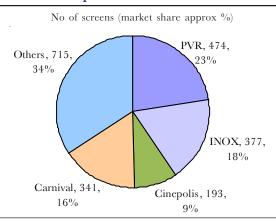
Key Ratios				
Period end (%)	Mar 12	Mar 13	Mar 14	Mar 15
Adjusted EPS (Rs)	37.1	46.5	11.7	18.0
Growth	1,561.3	25.6	(74.9)	54.0
CEPS (Rs)	39.6	48.8	12.3	18.9
Book NAV/share (Rs)	45.0	73.9	21.4	62.7
EBITDA margin	25.4	22.4	18.3	21.2
EBIT margin	24.2	21.5	17.6	20.5
Tax rate	14.4	1.7	(1.9)	18.9
RoCE	74.3	49.3	35.0	35.1
Total debt/Equity (x)	0.9	1.1	1.1	0.6
Net debt/Equity $(x)$	0.6	1.1	1.1	0.1
<b>Du Pont Analysis - ROI</b>	Ξ			
Net margin	17.9	17.6	14.9	14.7
Asset turnover (x)	2.0	1.6	1.3	1.2
$Leverage\ factor\ (x)$	3.6	3.2	3.4	2.6
Return on equity	130.8	86.5	64.7	43.9

Valuations					
Period end (x)	Mar 12	Mar 13	Mar 14	Mar 15	
PER	10.4	8.3	33.0	21.5	
PCE	9.8	7.9	31.5	20.4	
Price/Book	8.6	5.2	18.1	6.2	
EV/EBITDA	7.9	7.9	28.6	15.1	

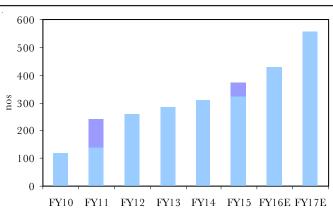
## **Inox Leisure**

Inox Leisure is the second largest multiplex chain in the country with 377 screens as of June 2015, behind PVR (474 screens). The company has been consolidating its no.2 position in the market through aggressive organic expansion and acquisitions (Fame in 2010, Satyam in 2014). The company has lined up additions of 57 screens in FY16 (added 5 so far) and 127 screens in FY17.

#### Inox is no.2 multiplex chain in India



#### Inox: Growth in number of screens



Source: Company, B&K Research

# Key operating metrics: Inox versus PVR

KPIs (1QFY16)	PVR	Inox
Occupancy (%)	38	33
$ATP\left( Rs\right)$	183	165
F&B SPH (Rs mn)	1,298	739
Ad revenue per screen	0.96	0.58
(Rs mn)		

Source: Company, B&K Research

## Mergers & Acquisitions

Yr. of deal	Acquirer	Target
Nov-12	PVR	Cinemax
Jul-14	Carnival	HDIL
Jul-14	Inox	Satyam
		Cineplex
Dec-14	Cinepolis	Fun Multiplex
Dec-14	Carnival	Big Cinema
Jan-15	Carnival	Stargaze
Jun-15	PVR	DT Cinemas
Source: Con	npany, B&K	Research

Inox Leisure's operating metrics lags behind those of PVR. This can be attributed to PVR's strong presence in North India (NCR, Haryana, Punjab), where occupancies and pricing have been traditionally higher than average. Compared to PVR, the company has more evenly spread geographic footprint.

#### **Growth drivers**

#### Rising penetration of multiplexes

Despite robust content eco-system, screen penetration in India is quite low – 8 screens per million populations as compared to 117 in US and around 30 in China. This leaves significant opportunities for growth, especially in tier II & III cities.

#### Non-box office revenues

Non-box office revenue streams such as Food & Beverages (F&B) and advertisement revenue has a potential to grow faster than box office revenue. Multiplexes including Inox are taking steps to raise consumer spends on F&B such as increase in number of food items and more convenient food ordering (on seat serving, Mobile App). Also, Inox has room to catch up with PVR on ad revenues; Ad revenue/screen at Rs 2.2 mn versus Rs 3.8 mn for PVR. The same has grown by 37% for Inox versus 3% for PVR in FY15.

#### Consolidation

There has been significant consolidation in multiplex market in the last three years. This implies less competition for mall space (better rental terms) ahead. The consolidation could also potentially result in better pricing power vis-à-vis consumers and film distributors.

## **Inox Leisure**

Income Statement					
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15	
Net sales	5,618	6,632	7,628	8,397	
Growth (%)	75.0	18.1	15.0	10.1	
Operating expenses	(4,890)	(5,652)	(6,408)	(7,190)	
Operating profit	729	980	1,220	1,207	
EBITDA	729	980	1,220	1,207	
Growth (%)	100.1	34.5	24.4	(1.0)	
Depreciation	(376)	(431)	(507)	(715)	
Other income	81	36	89	111	
EBIT	433	586	802	603	
Finance cost	(243)	(267)	(276)	(384)	
Exceptional & extradordinary	(180)	(25)	(4)	(5)	
Profit before tax	11	294	522	214	
Tax (current + deferred)	(26)	(109)	(153)	34	
P/(L) for the period	(15)	184	369	248	
P/L of Associates, Min Int, Pre-	f Div 57	0	0	0	
Reported Profit/(Loss)	42	184	369	248	
Adjusted net profit	42	184	369	248	
Growth (%)	(16.1)	339.2	100.2	(32.9)	

Balance Sheet					
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15	
Share capital	616	961	961	962	
Reserves & surplus	2,587	4,119	4,444	5,848	
Shareholders' funds	3,203	5,081	5,406	6,809	
Minority Intersts and others	501	0	0	0	
Non-current liablities	2,647	2,899	2,720	2,332	
Long-term borrowings	2,418	2,237	2,148	2,005	
Other non-current liabilities	229	661	571	327	
Current liabilities	1,036	1,990	1,952	1,940	
ST borrowings, Curr maturity	21	573	273	141	
Other current liabilities	1,015	1,417	1,679	1,799	
Total (Equity and Liab.)	7,387	9,969	10,078	11,081	
Non-current assets	6,736	9,149	9,319	9,691	
Fixed assets (Net block)	5,503	5,950	6,347	6,132	
Non-current Investments	7	1,844	1,507	1,889	
Long-term loans and advance	s 1,193	1,330	1,443	1,635	
Other non-current assets	32	25	23	35	
Current assets	651	820	759	1,390	
Cash & current investment	299	234	193	186	
Other current assets	352	585	566	1,204	
Total (Assets)	7,387	9,969	10,078	11,081	
Total debt	2,439	2,810	2,422	2,146	
Capital employed	6,372	8,552	8,399	9,282	

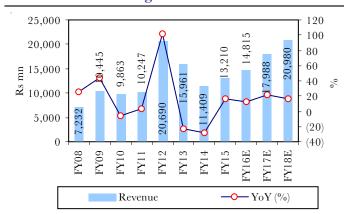
Cash Flow Statement										
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15						
Profit before tax	11	294	522	214						
Depreciation	376	431	507	715						
Change in working capital	(499)	42	170	(697)						
Total tax paid	(6)	(73)	(90)	(25)						
Others	193	245	260	384						
Cash flow from oper. (a)	76	938	1,369	590						
Capital expenditure	(424)	(877)	(903)	(500)						
Change in investments	(186)	(1,654)	311	(419)						
Others	45	29	18	(12)						
Cash flow from inv. (b)	(565)	(2,502)	(574)	(931)						
Free cash flow (a+b)	(489)	(1,563)	796	(341)						
Equity raised/(repaid)	0	346	0	0						
Debt raised/(repaid)	330	370	(388)	(276)						
Others	(84)	967	(475)	572						
Cash flow from fin. (c)	246	1,683	(863)	297						
Net chg in cash (a+b+c)	(243)	119	(68)	(44)						

Key Ratios											
Period end (%)	Mar 12	Mar 13	Mar 14	Mar 15							
Adjusted EPS (Rs)	0.7	1.9	3.8	2.6							
Growth	(16.1)	181.3	100.2	(32.9)							
CEPS (Rs)	6.8	6.4	9.1	10.0							
Book NAV/share (Rs)	52.0	52.9	56.2	70.8							
EBITDA margin	13.0	14.8	16.0	14.4							
EBIT margin	7.7	8.8	10.5	7.2							
Tax rate	241.2	37.2	29.2	(16.0)							
RoCE	7.1	7.8	9.5	6.8							
Total debt/Equity (x)	0.7	0.6	0.4	0.3							
Net debt/Equity (x)	0.6	0.5	0.4	0.3							
<b>Du Pont Analysis - ROE</b>											
Net margin	0.7	2.8	4.8	2.9							
Asset turnover (x)	0.7	0.8	0.8	0.8							
Leverage factor $(x)$	2.4	2.1	1.9	1.7							
Return on equity	1.3	4.5	7.0	4.1							

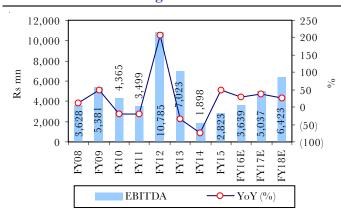
Valuations				
Period end (x)	Mar 12	Mar 13	Mar 14	Mar 15
PER	354.4	126.0	62.9	93.9
PCE	35.6	37.8	26.5	24.2
Price/Book	4.6	4.6	4.3	3.4
EV/EBITDA	23.4	26.3	20.9	20.9

# Financial analysis - Standalone

## Revenue and revenue growth

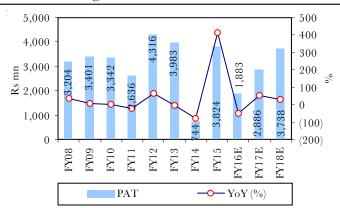


## EBITDA and EBITDA growth

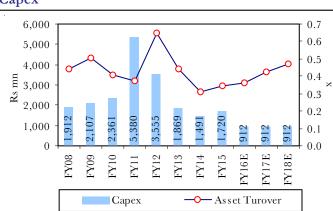


Source: Company, B&K Research

PAT and PAT growth

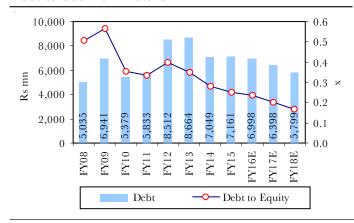


Capex

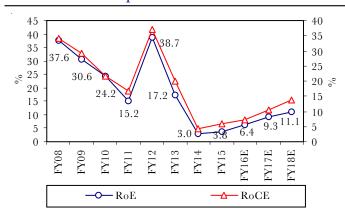


Source: Company, B&K Research

#### Debt to decline in future

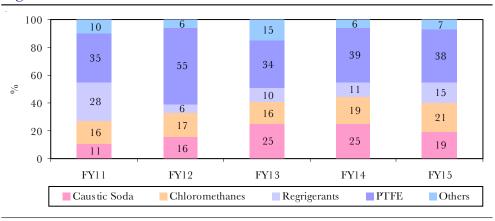


## Return ratios to improve



## Segmental revenues - Standalone

# Improving product mix towards higher grade PTFE



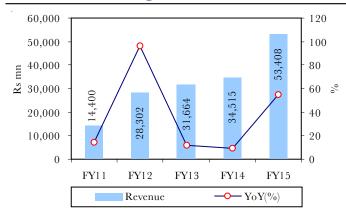
Source: Company, B&K Research

## Quarterly results (Standalone)

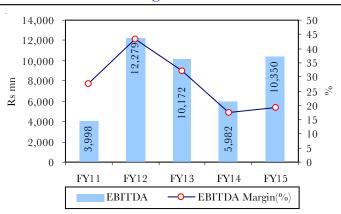
Quarter ending (Rs mn)	Jun 13	<b>Sep 13</b>	Dec 13	Mar 14	Jun 14	Sep 14	Dec 14	Mar 14	Jun 15
Net sales	2,526	2,619	3,141	3,063	2,821	3,507	3,306	3,458	3,432
YoY (%)	(56.8)	(15.4)	(13.6)	(8.0)	11.7	33.9	5.2	12.9	21.6
Gross profit	1,644	1,905	2,090	2,081	2,070	2,633	2,363	2,379	2,260
Gross margin (%)	65.1	72.8	66.5	67.9	73.4	75.1	71.5	68.8	65.8
Employees expense	194	200	196	217	229	253	251	229	267
Power & Fuel	700	691	818	783	843	1,024	748	827	769
Other expenditure	457	508	530	590	527	551	629	671	567
Foreign exchange fluctuation (Gain)/Loss	(78)	29	8	(5)	(5)	(18)	(13)	(6)	(30)
Total expenditure	1,274	1,427	1,551	1,584	1,595	1,810	1,614	1,720	1,573
Operating profit	370	478	539	497	475	822	749	660	687
Margins (%)	14.6	18.2	17.2	16.2	16.8	23.4	22.7	19.1	20.0
Other operating income	17	15	5	23	15	69	17	17	95
EBITDA	387	493	544	520	490	891	766	677	782
EBITDA margin (%)	15.3	18.8	17.3	17.0	17.4	25.4	23.2	19.6	22.8
Other income	280	168	97	60	201	141	71	107	92
Depreciation	249	256	259	253	271	312	318	338	344
EBIT	418	405	381	327	420	720	520	445	531
EBIT margin	16.5	15.5	12.1	10.7	14.9	20.5	15.7	12.9	15.5
Interest	148	146	131	129	128	131	129	133	134
<b>Exceptional item</b>					59	89		(2,937)	-
PBT	270	259	250	199	234	501	391	3,249	397
Tax	33	4	102	96	66	120	118	248	126
Tax/PBT (%)	12.2	1.4	40.7	48.2	28.0	24.0	30.2	7.6	31.8
Reported PAT	237	256	149	103	168	380	273	3,001	271
PAT margin (%)	9.4	9.8	4.7	3.4	6.0	10.8	8.2	86.8	7.9
Reported EPS (Rs)	2.2	2.3	1.4	0.9	1.5	3.5	2.5	27.3	2.5

# Financial analysis - Consolidated

### Revenue and revenue growth

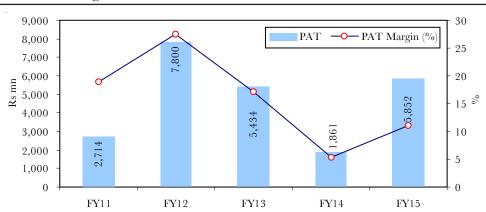


## EBITDA and EBITDA growth



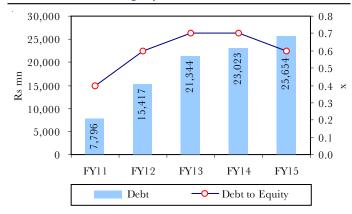
Source: Company, B&K Research

## PAT and PAT growth

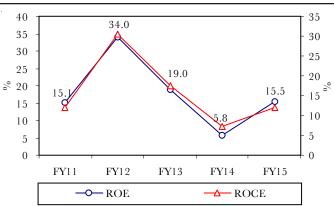


Source: Company, B&K Research

Debt and debt to equity



## Return ratios



Income Statement (Consolidated)											
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15							
Net sales	27,399	29,684	33,887	52,772							
Growth (%)	167.6	8.3	14.2	55.7							
Operating expenses	(16,023)	(21,492)	(28,534)	(43,058)							
Operating profit	11,376	8,192	5,353	9,714							
Other operating income	903	1,980	629	637							
EBITDA	12,279	10,172	5,982	10,350							
Growth (%)	207.1	(17.2)	(41.2)	73.0							
Depreciation	(1,490)	(1,707)	(2,004)	(2,848)							
Other income	469	313	454	498							
EBIT	11,258	8,779	4,431	8,001							
Finance cost	(891)	(1,320)	(1,789)	(2,188)							
Exceptional & extradordinary	0	0	0	2,443							
Profit before tax	10,367	7,459	2,642	8,256							
Tax (current + deferred)	(2,454)	(1,969)	(376)	(1,585)							
P/(L) for the period	7,913	5,490	2,266	6,671							
P/L of Associates, Min Int, Pref	Div (43)	88	(405)	(819)							
Reported Profit/(Loss)	7,870	5,578	1,861	5,852							
Adjusted net profit	7,870	5,578	1,861	5,852							
Growth (%)	232.9	(29.1)	(66.6)	214.5							

Balance Sheet (Consolidated)										
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15						
Share capital	110	110	110	110						
Reserves & surplus	27,071	31,482	32,860	42,243						
Shareholders' funds	27,180	31,592	32,970	42,353						
Minority Intersts and others	1,534	2,092	2,616	8,493						
Non-current liablities	10,788	14,624	15,659	15,048						
Long-term borrowings	8,957	12,085	12,473	11,368						
Other non-current liabilities	1,830	2,539	3,187	3,681						
Current liabilities	12,337	15,613	19,734	27,965						
ST borrowings, Curr maturity	5,110	7,021	8,122	12,202						
Other current liabilities	7,227	8,592	11,612	15,763						
Total (Equity and Liab.)	51,839	63,921	70,980	93,859						
Non-current assets	39,409	45,682	49,927	53,426						
Fixed assets (Net block)	33,678	40,743	44,338	44,690						
Non-current Investments	1,535	1,244	793	1,365						
Long-term loans and advance	s 3,189	3,061	3,935	5,410						
Other non-current assets	1,006	633	861	1,961						
Current assets	12,431	18,239	21,052	40,432						
Cash & current investment	3,219	2,827	3,429	11,400						
Other current assets	9,212	15,412	17,623	29,033						
Total (Assets)	51,839	63,921	70,980	93,859						
Total debt	14,068	19,106	20,595	23,569						
Capital employed	44,612	55,329	59,367	78,095						

Cash Flow Statement (Consolidated)										
Period end (Rs mn)	Mar 12	Mar 13	Mar 14	Mar 15						
Profit before tax	10,367	7,459	2,642	8,256						
Depreciation	1,490	1,707	2,004	2,848						
Change in working capital	(4,029)	(4,683)	(54)	(8,684)						
Total tax paid	(2,261)	(1,804)	138	(1,018)						
Others	554	1,195	1,335	1,690						
Cash flow from oper. (a)	6,121	3,873	6,065	3,091						
Capital expenditure	(12,882)	(8,771)	(5,600)	(3,200)						
Change in investments	3,038	(1,582)	(215)	2,103						
Others	(8)	306	405	537						
Cash flow from inv. (b)	(9,852)	(10,046)	(5,410)	(560)						
Free cash flow (a+b)	(3,730)	(6,174)	655	2,531						
Equity raised/(repaid)	6	(95)	0	0						
Debt raised/(repaid)	7,808	5,038	1,489	2,975						
Dividend (incl. tax)	(227)	(284)	(450)	(450)						
Others	(1,553)	(806)	(1,758)	5,590						
Cash flow from fin. (c)	6,034	3,854	(719)	8,115						
Net chg in cash (a+b+c)	2,304	(2,320)	<b>(64)</b>	10,645						

Key Ratios (Consolidated)											
Period end (%)	Mar 12	Mar 13	Mar 14	Mar 15							
Adjusted EPS (Rs)	71.6	50.8	16.9	53.3							
Growth	232.9	(29.1)	(66.6)	214.5							
CEPS (Rs)	85.2	66.3	35.2	79.2							
Book NAV/share (Rs)	247.4	287.6	300.1	385.5							
Dividend/share (Rs)	1.5	2.0	3.5	3.5							
Dividend payout ratio	2.9	5.1	24.2	7.7							
EBITDA margin	44.8	34.3	17.7	19.6							
EBIT margin	41.1	29.6	13.1	15.2							
Tax rate	23.7	26.4	14.2	19.2							
RoCE	30.4	17.6	7.7	11.6							
Total debt/Equity (x)	0.5	0.6	0.6	0.5							
Net debt/Equity $(x)$	0.4	0.5	0.5	0.2							
Du Pont Analysis - ROE											
Net margin	28.7	18.8	5.5	11.1							
Asset turnover (x)	0.6	0.5	0.5	0.6							
$Leverage\ factor\ (x)$	1.9	2.0	2.1	2.2							
Return on equity	34.0	19.0	5.8	15.5							

Valuations (Consolidated)										
Period end (x) Mar 12 Mar 13 Mar 14 Ma										
PER	7.1	5.9	18.9	13.2						
PCE	6.0	4.5	9.1	8.9						
Price/Book	2.1	1.0	1.1	1.8						
Yield (%)	0.3	0.7	1.1	0.5						
EV/EBITDA	5.5	4.8	8.7	8.7						

# **Detailed financials**

## **Income Statement**

Yr end 31 Mar (Rs mr	n) FY12	FY13	FY14	FY15	FY16E	FY17E	FY18E
Net sales	20,690	15,961	11,409	13,210	14,815	17,988	20,980
Raw material cost	1,634	2,305	3,628	3,648	3,705	4,310	4,789
Gross margin (%)	7.9	14.4	31.8	27.6	25.0	24.0	22.8
Personnel cost	665	745	807	962	1,077	1,206	1,351
Other expenditure	7,607	5,888	5,077	5,777	6,394	7,435	8,416
EBITDA	10,785	7,023	1,898	2,823	3,639	5,037	6,423
EBITDA margin (%)	52.1	44.0	16.6	21.4	24.6	28.0	30.6
Depreciation	778	964	1,017	1,239	1,439	1,482	1,525
Other income	576	569	650	520	560	750	900
EBIT	10,583	6,628	1,531	2,105	2,761	4,305	5,799
Interest paid	571	689	553	520	250	240	220
Pre-tax profit	10,012	5,938	978	4,375	2,511	4,065	5,579
Tax (current + deferred)	2,482	1,959	234	552	628	1,179	1,841
Net profit	7,530	3,979	744	3,824	1,883	2,886	3,738
Adjusted net profit	7,530	3,979	744	1,033	1,883	2,886	3,738

## **Balance Sheet**

Yr end 31 Mar (Rs mn)	FY12	FY13	FY14	FY15P	FY16E	FY17E	FY18E
Current assets							
Cash & bank	2,113	193	85	3,464	3,879	4,096	5,020
Debtors	2,478	3,309	3,167	3,854	4,323	5,248	6,121
Inventory	4,144	4,211	3,169	3,671	4,117	4,999	5,831
Loans and advances	500	578	558	538	603	732	854
Non-current assets	_	1	1	_	_	_	_
Fixed assets (Net block)	18,802	20,158	20,564	21,031	20,641	20,408	20,332
Add: Capital WIP	2,534	3,910	4,282	_	_	_	_
Investments	2,882	2,691	2,542	4,205	4,205	4,205	4,205
Total assets	34,590	37,270	36,529	40,698	41,608	43,437	46,017
Current liabilities							
Creditors	1,209	1,023	1,202	1,065	1,082	1,259	1,399
Other current liabilities	1,675	650	411	633	391	391	391
Non-current liabilities	5,328	5,020	5,049	5,145	5,645	5,645	5,645
Total debt	8,512	8,664	7,049	7,161	6,998	6,398	5,799
<b>Total liabilities</b>	13,173	12,317	11,282	12,142	11,738	11,315	10,856
Total shareholders' fund	21,418	24,953	25,247	28,556	29,869	32,121	35,161
Paid up capital	110	110	110	110	110	110	110
Reserves and surplus	21,308	24,843	25,137	28,446	29,759	32,012	35,051
Total equity and liab.	34,590	37,269	36,529	40,698	41,608	43,437	46,017

## Cash Flow

Yr end 31 Mar (Rs mn)	FY12	FY13	FY14	FY15P	FY16E	FY17E	FY18E
Pre-tax profit	10,012	5,938	978	4,375	2,511	4,065	5,579
Depreciation	778	964	1,017	1,239	1,439	1,482	1,525
Chg in working capital	(3,739)	(3,171)	1,145	(498)	(1,125)	(1,668)	(1,593)
Total tax paid	(2,511)	(1,683)	203	83	(628)	(1,179)	(1,841)
Cash flow from oper. (a)	4,653	2,337	3,402	5,200	1,887	2,190	2,989
Capital expenditure	(3,555)	(1,869)	(1,491)	(1,721)	(1,049)	(1,249)	(1,449)
chg in investments	3,012	(1,762)	225	307	_	_	_
Cash flow from inv. (b)	(321)	(3,277)	(896)	(894)	(489)	(499)	(549)
Free cash flow (a+b)	4,332	(940)	2,507	4,306	1,398	1,691	2,440
Debt raised/(repaid)	2,681	153	(1,615)	112	(163)	(600)	(599)
Dividend (incl. tax)	(227)	(284)	(450)	(450)	(514)	(579)	(643)
Other financing activities	(4,860)	(850)	(549)	(589)	(305)	(295)	(275)
Cash flow from fin. (c)	(2,406)	(981)	(2,614)	(927)	(983)	(1,474)	(1,517)
Net chg in cash (a+b+c)	1,926	(1,921)	(107)	3,379	416	217	923

Income Statement (Standalone)				
Period end (Rs mn)	Mar 15	Mar 16E	Mar 17E	Mar 18E
Netsales	13,210	14,815	17,988	20,980
Growth (%)	15.8	12.2	21.4	16.6
Operating expenses	(10,386)	(11, 176)	(12,952)	(14,556)
Operating profit	2,823	3,639	5,037	6,423
EBITDA	2,823	3,639	5,037	6,423
Growth (%)	48.8	28.9	38.4	27.5
Depreciation	(1,239)	(1,439)	(1,482)	(1,525)
Other income	520	560	750	900
EBIT	2,105	2,761	4,305	5,799
Finance cost	(520)	(250)	(240)	(220)
Exceptional & extraordinary	2,791	_	_	_
Profit before tax	4,375	2,511	4,065	5,579
Tax (current + deferred)	(552)	(628)	(1,179)	(1,841)
P/(L) for the period	3,824	1,883	2,886	3,738
Reported Profit/(Loss)	3,824	1,883	2,886	3,738
Adjusted net profit	1,033	1,883	2,886	3,738

38.9

Growth (%)

82.3 53.3

29.5

Balance Sheet (Standalone)				
Period end (Rs mn)	Mar 15P	Mar 16E	Mar 17E	Mar 18E
Share capital	110	110	110	110
Reserves & surplus	28,446	29,759	32,012	35,051
Shareholders' funds	28,556	29,869	32,121	35,161
Non-current liabilities	5,145	5,645	5,645	5,645
Long-term borrowings	2,380	2,880	2,880	2,880
Other non-current liabilities	2,765	2,765	2,765	2,765
Current liabilities	6,997	6,093	5,670	5,211
ST borrowings, Curr maturity	4,781	4,118	3,518	2,919
Other current liabilities	2,215	1,974	2,151	2,291
Total (Equity and Liab.)	40,698	41,608	43,437	46,017
Non-current assets	29,012	28,523	28,190	28,014
Fixed assets (Net block)	21,031	20,641	20,408	20,332
Non-current Investments	4,205	4,205	4,205	4,205
Long-term loans and advances	3,777	3,677	3,577	3,477
Current assets	11,686	13,085	15,247	18,003
Cash & current investment	3,590	4,006	4,223	5,146
Other current assets	8,095	9,079	11,024	12,857
Total (Assets)	40,698	41,608	43,437	46,017
Total debt	7,161	6,998	6,398	5,799
Capital employed	38,483	39,633	41,285	43,726

Cash Flow Statement (Standalone)				
Period end (Rs mn)	Mar 15P	Mar 16E	Mar 17E	Mar 18E
Profit before tax	4,375	2,511	4,065	5,579
Depreciation	1,239	1,439	1,482	1,525
Change in working capital	(498)	(1,125)	(1,668)	(1,593)
Total tax paid	83	(628)	(1, 179)	(1,841)
Others	_	(310)	(510)	(680)
Cash flow from oper. (a)	5,200	1,887	2,190	2,989
Capital expenditure	(1,721)	(1,049)	(1,249)	(1,449)
Change in investments	307	_	_	_
Others	521	560	750	900
Cash flow from inv. (b)	(894)	(489)	(499)	(549)
Free cash flow (a+b)	4,306	1,398	1,691	2,440
Debt raised/(repaid)	112	(163)	(600)	(599)
Dividend (incl. tax)	(450)	(514)	(579)	(643)
Others	(589)	(305)	(295)	(275)
Cash flow from fin. (c)	(927)	(983)	(1,474)	(1,517)
Net chg in cash (a+b+c)	3,379	416	217	923

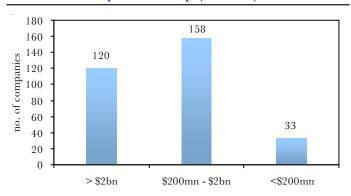
Key Ratios (Standalone)				
Period end (%)	Mar 15P	Mar 16E	Mar 17E	Mar 18E
Adjusted EPS (Rs)	9.4	17.1	26.3	34.0
Growth	38.9	82.2	53.3	29.5
CEPS (Rs)	20.7	30.2	39.7	47.9
Book NAV/share (Rs)	260.0	271.8	292.3	319.9
Dividend/share (Rs)	3.5	4.0	4.5	5.0
Dividend payout ratio	11.8	27.3	20.0	17.2
EBITDA margin	21.4	24.6	28.0	30.6
EBIT margin	15.9	18.6	23.9	27.6
Tax rate	34.8	25.0	29.0	33.0
RoCE	5.8	7.1	10.6	13.6
Total debt/Equity (x)	0.3	0.2	0.2	0.2
Net debt/Equity (x)	0.1	0.1	0.1	_
Du Pont Analysis - ROE				
Net margin	7.8	12.7	16.0	17.8
Asset turnover (x)	0.3	0.4	0.4	0.5
Leverage factor $(x)$	1.4	1.4	1.4	1.3
Return on equity	3.8	6.4	9.3	11.1

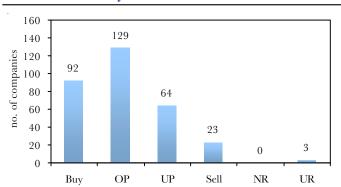
Valuations (Standalone)				
Period end (x)	Mar 15P	Mar 16E	Mar 17E	Mar 18E
PER	75.0	39.9	26.0	20.1
PCE	34.1	22.6	17.2	14.3
Price/Book	2.7	2.5	2.3	2.1
Yield (%)	0.5	0.6	0.7	0.7
EV/EBITDA	28.7	21.4	15.3	11.8

## **B&K** Universe Profile

## By Market Cap (US\$ mn)

#### By Recommendation





B&K Securities is the trading name of Batlivala & Karani Securities India Pvt. Ltd.

#### **B&KInvestment Ratings.**

	LARGE CAP (Market Cap > USD 2 bn)	MID CAP (Market Cap of USD 200 mn to USD 2 bn)	SMALL CAP (Market Cap <usd 200="" mn)<="" th=""></usd>
BUY	>+20% (absolute returns)	>+25% (absolute returns)	>+30% (absolute returns)
OUTPERFORMER	+10% to +20%	+15% to +25%	+20% to +30%
UNDERPERFORMER	+10% to -10%	+15% to -15%	+20% to -20%
SELL	<-10% (absolute returns)	<-15% (absolute returns)	<-20% (absolute returns)

**Disclaimer:** This report was prepared, approved, published and distributed by Batlivala & Karani Securities India Private Limited ("B&K") located outside of the United States (a "non-US Group Company"), which accepts responsibility for its contents. It is distributed in the U.S. by Enclave Capital, a U.S. registered broker dealer, on behalf of B&K, only to major U.S. institutional investors (as defined in Rule 15a-6 under the U.S. Securities Exchange Act of 1934 (the "Exchange Act")) pursuant to the exemption in Rule 15a-6. Neither the report nor any analyst who prepared or approved the report is subject to U.S. legal requirements or the Financial Industry Regulatory Authority, Inc. ("FINRA") or other regulatory requirements pertaining to research reports or research analysts. No non-US Group Company is registered as a broker-dealer under the Exchange Act or is a member of the Financial Industry Regulatory Authority, Inc. or any other U.S. self-regulatory organization. Outside the United States, this report is distributed by B&K or an authorized affiliate of B&K.

The report has been compiled or arrived from sources believed to be reliable and in good faith, but no representation or warranty, express or implied is made as to their accuracy, completeness or correctness. B&K has not verified the factual accuracy, assumptions, calculations or completeness of the information. Accordingly, B&K accepts no liability whatsoever for any direct or consequential loss or damage arising from (i) the use of this communication (ii) reliance of any information contained herein, (iii) any error, omission or inaccuracy in any such Information or (iv) any action resulting there from. B&K provides the information for the purpose of the intended recipient's analysis and review and recipients are advised to verify the factual accuracy, assumptions, calculations and completeness of the information.

This report was produced by B&K solely for information purposes and for the use of the recipient. It is not to be reproduced under any circumstances and is not to be copied or made available to any person other than the recipient. All estimates, expressions of opinion and other subjective judgments contained herein are made as of the date of this document. Emerging securities markets may be subject to risks significantly higher than more established markets. In particular, the political and economic environment, company practices and market prices and volumes may be subject to significant variations. The ability to assess such risks may also be limited due to significantly lower information quantity and quality. By accepting this document, you agree to be bound by all the foregoing provisions. This document does not constitute an offer of, or an invitation by or on behalf of B&K or its affiliates or any other company to any person, to buy or sell any security.

**Analyst Certification:** Each of the analysts identified in this report certifies, with respect to the companies or securities that the individual analyses, that (1) the views expressed in this report reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly dependent on the specific recommendations or views expressed in this report.

#### Disclosures, applying to B&K and the Analyst (together with associates and family members)

Ownership interest in the issuer of the securities mentioned	< 1%
Other financial interest in the issuer	None
Other material conflict of interest	None
Compensation/benefits received from issuer/3 <sup>rd</sup> Parties in past 12 months:	
Public offerings managed/co-managed for issuer	None
Fees for merchant banking, investment banking or brokerage services (as percentage of issuer's turnover)	< 0.1%
Compensation for other services (as percentage of issuer's turnover)	< 0.1%
Analyst service as officer, director or employee of the issuer	None
Involvement in market-making in the issuer's securities	None

#### Important US Regulatory Disclosures on Subject Companies

- 1. B&K or its Affiliates have not recently been the beneficial owners of 1% or more of the securities mentioned in this report.
- 2. B&K or its Affiliates have not managed or co-managed a public offering of the securities mentioned in the report in the past 12 months.
- 3. B&K or its Affiliates have not received compensation for investment banking services from the issuer of these securities in the past 12 months and do not expect to receive compensation for investment banking services from the issuer of these securities within the next three months.
- 4. However, one or more person of B&K or its affiliates may, from time to time, have a long or short position in any of the securities mentioned herein and may buy or sell those securities or options thereon either on their own account or on behalf of their clients.
- 5. B&K or its Affiliates may, to the extent permitted by law, act upon or use the above material or the conclusions stated above or the research or analysis on which they are based before the material is published to recipients and from time to time provide investment banking, investment management or other services for or solicit to seek to obtain investment banking, or other securities business from, any entity referred to in this report.
- 6. As of the publication of this report, Enclave Capital does not make a market in the subject securities.

Enclave Capital is the distributor of this document in the United States of America. Any US customer wishing to effect transactions in any securities referred to herein or options thereon should do so only by contacting a representative of Enclave Capital and any transaction effected by a U.S. customer in the securities described in this report must be effected through Enclave Capital (19 West 44th Street, suite 1700, New York, NY 10036).

#### **B & K SECURITIES INDIA PRIVATE LTD.**

Equity Research Division: City Ice Bldg., 298, Ground/1st Floor, Perin Nariman Street, Behind RBI, Fort, Mumbai - 400 001, India. Tel.: 91-22-4031 7000, Fax: 91-22-2263 5020/30. Registered Office: Room No. 3/4, 7 Lyons Range, Kolkata - 700 001. Tel.: 91-33-2243 7902.

B&K Research is also available on Bloomberg <BNKI>, Thomson First Call & Investext.