



India

REDUCE (previously Initiating coverage)

Consensus ratings*: Buy 6 Hold 4 Sell 2

Current price:	Rs1,416
Target price:	Rs663
Previous target:	Rs666
Up/downside:	-53.2%
InCred Research / Consensus:	-54.0%
Reuters:	
Bloomberg:	CLEAN IN
Market cap:	US\$1,804m Rs150,436m
Average daily turnover:	US\$2.6m Rs213.9m
Current shares o/s:	106.3m
Free float:	21.5%

*Source: Bloomberg



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	3.3	(2.9)	(8.9)
Relative (%)	(4.0)	(6.6)	(18.9)

Major shareholders	% held
Promoter & Promoter Group	78.5
Axis Mutual Fund Trustee Limited	1.8
Nomura India Investment Fund	1.2

Clean Science and Technology

Cut our EPS estimates; retain REDUCE

- Clean Science and Technology is facing increased competition in its base products MEHQ and BHA, which is eroding the margins.
- HALS and TBHQ will take a long time (at least 12-18 months) to show some visible impact on earnings. Making TBHQ by importing HQ is margin-dilutive.
- Consensus EPS estimates are too high. We cut our FY24F/25F/26F EPS and reiterate high-conviction REDUCE rating on Clean Science and Technology.

Clean Science and Technology's MEHQ spreads decline

The chemistry of hydroquinone (HQ) production is such that if HQ is made using phenol and hydrogen peroxide, the process will produce 55% catechol and 45% HQ. Although MEHQ spreads from the HQ route are much higher than that of anisole, due to catechol losses and the HQ plant not being stable, Camlin Fine Sciences (CFSL) was not able to undercut Clean Science and Technology (Clean Science) and capture market share. However, now the HQ plant is stable, and it is operating at more than 80% of its capacity. Even after accounting for catechol losses at the EBITDA level, CFSL's captive HQ-led MEHQ spreads are equal to the current spreads of Clean Science's MEHQ. Hence, as CFSL is ramping up production, MEHQ prices are falling. Please note that MEHQ global demand is not more than 13,000t. While it has multiple usage, the most important usage is in the form of a catalyst in the production of super absorbent polymer (SAP), which is used to produce diapers and sanitary napkins. The rise in CFSL's MEHQ production and the slowdown in global demand are leading to a fall in MEHQ prices, and Clean Science's MEHQ spreads in 3QFY24F will be down by 20% over 2QFY24 (the entire fall led by MEHQ prices).

TBHQ will barely make money and BHA spreads are also falling

The other key product for Clean Science is BHA. Its spreads are also falling, and export volume is stagnant. While Clean Science has ventured into making TBHQ, it is dependent on imported/bought-out HQ to make TBHQ and hence, gross margins will be at a bare minimum at ~Rs250/kg. Also, TBHQ is mostly sold as a blend with BHA. Competitors took years to master this, as it's an iterative process. May be Clean Science will take less time, but still it can't happen in three-to-four quarters.

We cut our EPS estimates & retain REDUCE rating with a TP of 663

Consensus EPS estimates are too high and in the most likely case, FY24F EPS will be 20% below FY23 EPS. We also cut our FY25F and FY26F EPS estimates to Rs22.1 and Rs25.5, respectively. We retain our REDUCE rating on the stock with a marginally lower 12-month target price of Rs663 (from Rs666 earlier). Upside risk: A sharp recovery in MEHQ prices will lead to an upgrade of our EPS estimates.

Research Analyst(s)



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Financial Summary	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue (Rsm)	5,124	6,849	9,358	7,840	9,040
Operating EBITDA (Rsm)	2,590	2,999	4,021	2,617	3,123
Net Profit (Rsm)	1,984	2,285	2,952	2,350	2,716
Core EPS (Rs)	18.7	21.5	27.8	22.1	25.5
Core EPS Growth	42.1%	15.2%	29.2%	(20.4%)	15.6%
FD Core P/E (x)	76.62	66.52	51.50	64.67	55.97
DPS (Rs)	0.0	0.0	0.0	0.0	0.0
Dividend Yield	0.00%	0.00%	0.00%	0.00%	0.00%
EV/EBITDA (x)	57.74	49.80	36.96	51.77	42.72
P/FCFE (x)	4,234.09	312.16	13.14	84.25	84.65
Net Gearing	(45.9%)	(34.5%)	(33.7%)	(144.4%)	(134.2%)
P/BV (x)	28.17	19.78	15.05	13.27	10.97
ROE	45.0%	34.9%	33.2%	21.8%	21.5%
% Change In Core EPS Estimates			0.04%	(0.25%)	(0.24%)
InCred Research/Consensus EPS (x)					

SOURCE: INCRED RESEARCH, COMPANY REPORTS

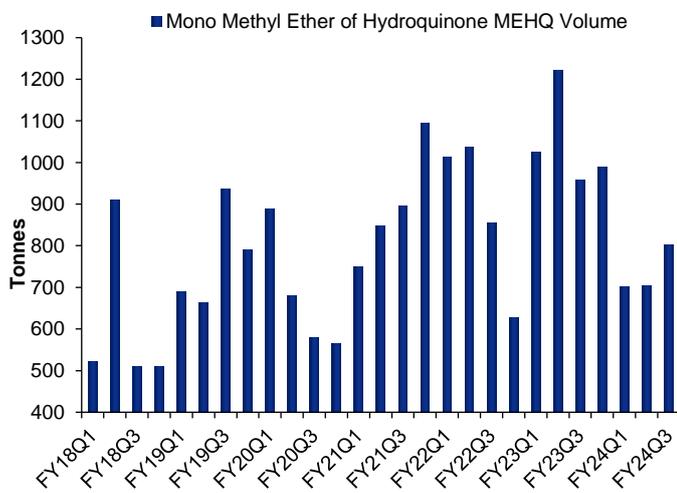
EPS growth likelihood is very low in FY24F

Slowing global economic scenario and a highly concentrated product portfolio are impeding the growth prospects of Clean Science. HALS in no panacea (please read [IN: Clean Science and Technology - Still pricing in dreams - REDUCE \(REDUCE - Maintained\)](#)) and MEHQ spreads as well as export volume are falling. Even BHA spreads are falling, which is even worse news for the company. MEHQ has a very small market, and the competitive intensity is growing as the new entrants as well the old, entrenched players are ramping up their capacities.

MEHQ - small market, rising competition and falling profitability

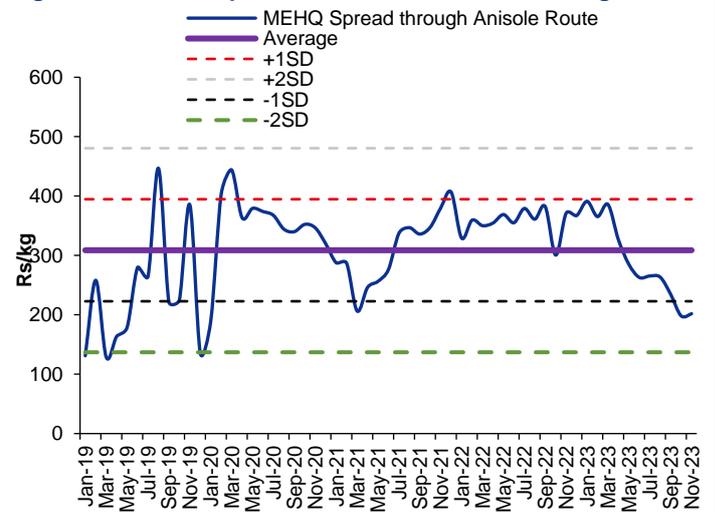
MEHQ's exports as well as its spreads are falling ➤

Figure 1: MEHQ is on a downtrend



SOURCE: COMPANY REPORTS, INCRED RESEARCH

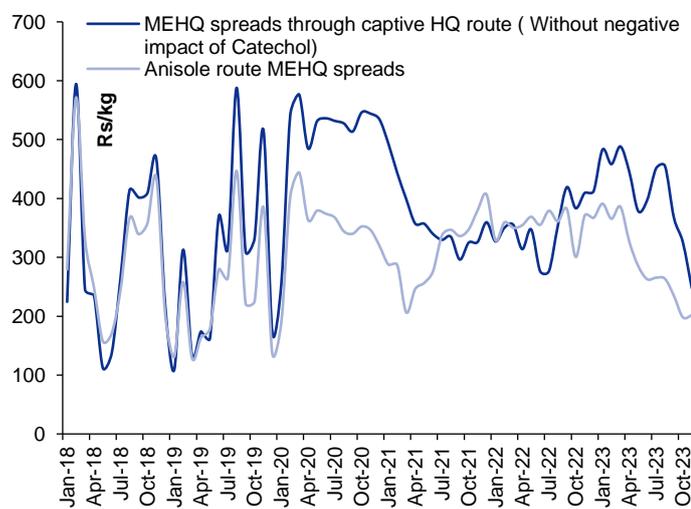
Figure 2: ...and its spreads over raw material are falling



SOURCE: COMPANY REPORTS, INCRED RESEARCH

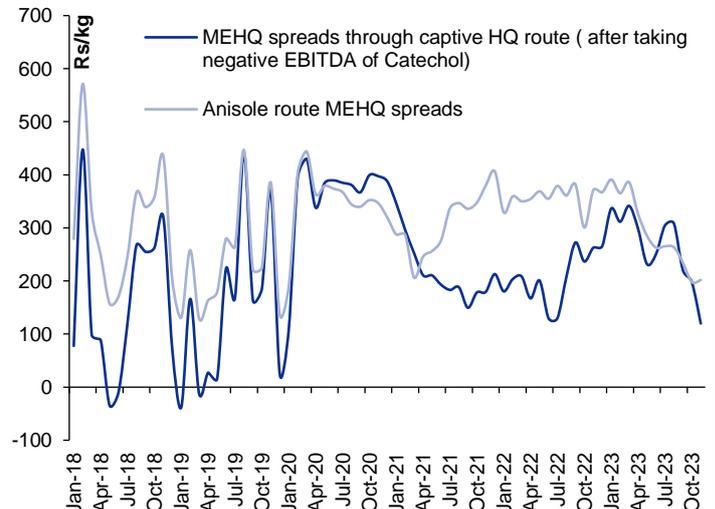
In MEHQ, key competitor Camlin Fine Sciences has ramped up capacity and, even adjusted for catechol losses, equals margins ➤

Figure 3: MEHQ spreads without the negative impact of catechol are way better for Camlin Fine Sciences vis-à-vis Clean Science



SOURCE: COMPANY REPORTS, INCRED RESEARCH

Figure 4: Assuming no vanillin sales (hence, no cost recovery in catechol) Clean Science and Camlin Fine Sciences' profitability is very close to each other



SOURCE: COMPANY REPORTS, INCRED RESEARCH

MEHQ is used in consumer products

MEHQ, or monomethyl ether hydroquinone, is a compound commonly used as a stabilizer in various products, especially in industries like cosmetics, polymers, and food products. Its primary role is as an inhibitor or antioxidant, preventing the products from undergoing unwanted chemical reactions like oxidation or polymerization, which can lead to spoilage or degradation.

In cosmetics, MEHQ is often used in skin-care products to maintain their stability and prevent discolouration or degradation caused by exposure to air or light. However, it's important to note that excessive use or concentration of MEHQ in products can potentially cause skin irritation or other adverse reactions in sensitive individuals.

Superabsorbent polymers are commonly made from the polymerization of acrylic acid blended with sodium hydroxide. MEHQ is used as a stabilizer for acrylic acid and its salts. The stabilizer is added between 10 and 1,000ppm, concentrations between 50ppm and 200ppm are common. Stabilization is particularly necessary if the acrylic acid has to be transported and/ or stored between manufacture and processing. Inhibitors such as MEHQ (monomethyl ether hydroquinone) and PTZ (phenothiazine) are added to acrylic acid in the shipping and storage process to prevent its spontaneous polymerization. Stabilizers/inhibitors prevent the inadvertent polymerization of acrylic acid; they work as scavengers. In the production process of acrylic acid, MEHQ is required at high temperatures and in the presence of dissolved atmospheric oxygen for polymerization inhibition.

Global demand for MEHQ is ~13-13,500t

In Clean Science's DRHP (draft red herring prospectus), the company has estimated that global demand for MEHQ will grow at a 5.8% CAGR but it doesn't appear to be happening. All signs are pointing to a much slower growth from the 2020 base. In the most likely case, global demand for MEHQ will be around 13,000-13,500t.

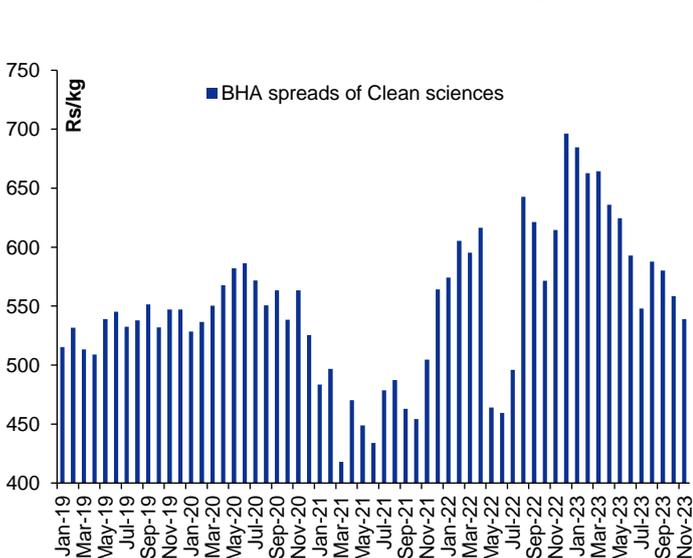
In India alone, MEHQ capacity is around 10,000t

In India alone, there is 10,000t of MEHQ capacity. Clean Science can sell ~6,000 t of MEHQ, Camlin Fine Sciences 2,500t while Vinati Organics has also come up with a capacity of 2,500t. Globally, Solvay also has a significant MEHQ capacity.

BHA – falling profitability and stagnant exports

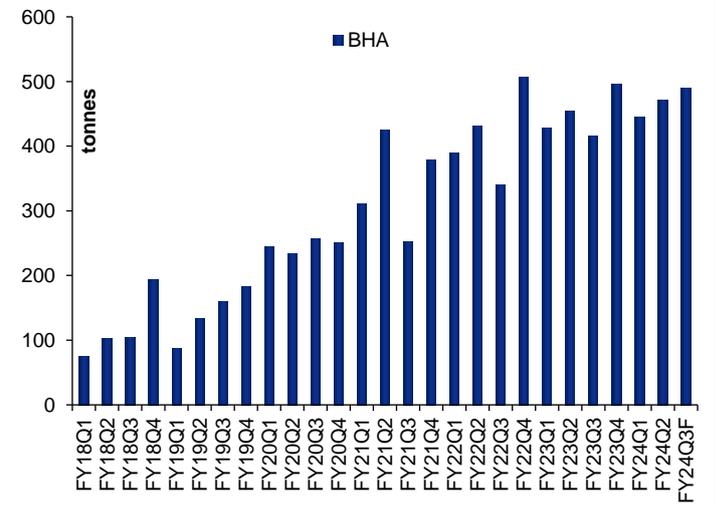
BHA's spreads and export volume are falling

Figure 5: Clean Science's BHA spreads are falling



SOURCE: COMPANY REPORTS, INCRED RESEARCH

Figure 6: The company's BHA exports are stagnant; we believe that in FY24F, 3Q exports will be at the same level as that of the earlier quarters



SOURCE: COMPANY REPORTS, INCRED RESEARCH

BHA has multiple usage, but it's mostly used as a food preservative >

BHA, or butylated hydroxy anisole, is a synthetic antioxidant widely used in various industries for its ability to prevent rancidity and extend the shelf life. Here are some of its key uses:

Food preservative

BHA is a common food additive used to prevent the oxidation of fats and oils, which can cause spoilage and off-flavours. This helps extend the shelf life of various food products, including:

1. Fats and oils: Vegetable oils, shortening, butter & margarine.
2. Baked goods: Cakes, cookies & crackers.
3. Cereals and snack foods: Instant noodles, chips & popcorn.
4. Processed meats: Sausages, hot dogs & bacon.
5. Chewing gum: Prevents oxidation of flavours and gums.

Cosmetics ingredient

1. In cosmetics, BHA acts as an antioxidant and preservative, protecting the ingredients from oxidation and degradation. It also has some potential skin benefits:
2. Exfoliation: BHA, especially salicylic acid, can help exfoliate dead skin cells, reducing the appearance of acne and improving skin texture.
3. Anti-inflammatory: BHA has anti-inflammatory properties, which can help calm irritated skin and improve the appearance of acne.
4. Anti-aging: Some studies suggest that BHA may help reduce the appearance of fine lines and wrinkles.

Pharmaceutical ingredient

1. Preservative: BHA can be used to preserve certain medications and prevent them from spoiling.
2. Excipient: BHA can act as an excipient in some medications, helping to improve their stability and delivery.

Industrial applications

1. BHA is used in various industrial applications due to its antioxidant properties:
2. Petroleum products: BHA helps prevent the oxidation of petroleum products, such as gasoline and diesel, improving their stability and performance.
3. Plastics: BHA can be added to plastics to improve their resistance to degradation and discolouration.
4. Rubber: BHA can help prevent the oxidation of rubber, improving its elasticity and durability.

In food products as well, often it is used in a blend with TBHQ >

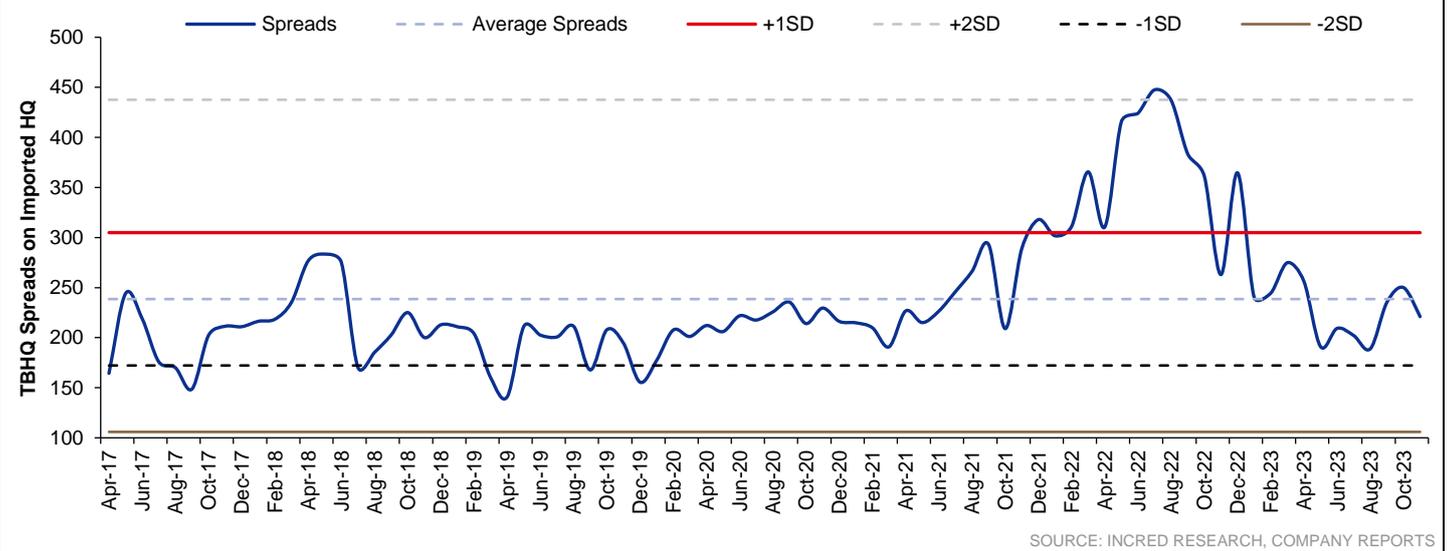
Both BHA (butylated hydroxyanisole) and TBHQ (tert-butylhydroquinone) are synthetic phenolic antioxidants commonly used in food and industrial products to prevent oxidation and rancidity. Blending these two antioxidants can be beneficial for achieving a synergistic effect, resulting in better antioxidant activity than using either one alone.

1. Synergistic effect: BHA and TBHQ have different mechanisms of action and can work together to more effectively scavenge free radicals and prevent oxidation. This can lead to a longer shelf life and improved stability of the product.
2. Broader spectrum of activity: BHA is more effective against lipid oxidation, while TBHQ is more effective against protein oxidation. Blending them provides protection against a wider range of oxidative damage.

- Lower overall dosage: Using a blend of BHA and TBHQ may require less total antioxidants to achieve the desired level of protection, potentially reducing costs and potential side effects.

Hence, to complete its portfolio, Clean Science has expanded into TBHQ, but TBHQ's gross margin is much less for the company ➤

Figure 7: Clean Science doesn't make HQ but imports it to make TBHQ and as a result, gross spreads for TBHQ are much lesser when compared with other products



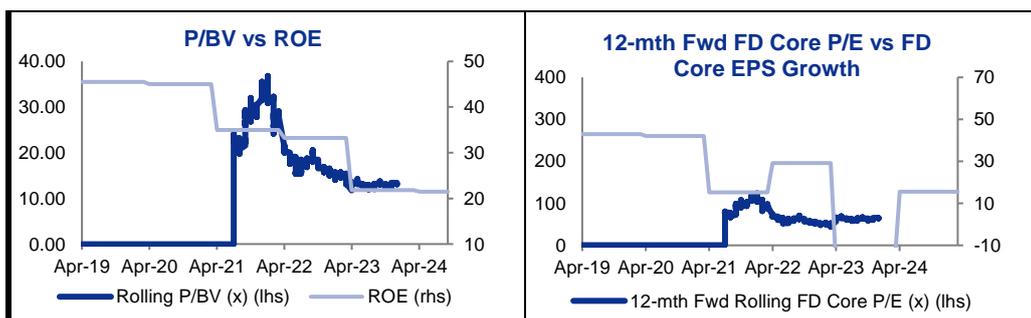
Earnings to remain under pressure

Figure 8: We expect its EPS to decline YoY, but there can be a marginal improvement QoQ to Rs5.4

(Rs m)	1QFY23	2QFY23	3QFY23	4QFY23	1QFY24	2QFY24	3QFY24F
Net Revenue	2,341	2,475	2,374	2,169	1,881	1,811	1,987
Total Cost of Goods Sold	913	927	778	641	726	618	715
Employee Benefit Expenses	100	106	118	128	117	119	119
Other Expenses	414	467	396	349	277	326	326
Total Expenses	1,427	1,500	1,292	1,118	1,120	1,063	1,160
EBITDA	913	975	1,082	1,051	761	748	827
Depreciation	85	87	89	101	108	111	111
EBIT	829	888	993	950	653	637	716
Other Income	18	28	126	126	134	60	60
Interest Expenses	0	0	1	1	1	3	3
Profit Before Tax	847	916	1,118	1,075	787	695	773
Total Tax Expenses	218	237	280	270	198	173	195
Profit After Tax	629	679	838	805	589	522	578
Year-End	5.9	6.4	7.9	7.6	5.5	4.9	5.4

SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS



Profit & Loss

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Net Revenues	5,124	6,849	9,358	7,840	9,040
Gross Profit	3,888	4,602	6,098	4,939	5,695
Operating EBITDA	2,590	2,999	4,021	2,617	3,123
Depreciation And Amortisation	(172)	(249)	(361)	(7)	(24)
Operating EBIT	2,417	2,750	3,660	2,610	3,099
Financial Income/(Expense)	(1)	(1)	(2)	(1)	(1)
Pretax Income/(Loss) from Assoc.					
Non-Operating Income/(Expense)	256	300	298	533	533
Profit Before Tax (pre-EI)	2,673	3,048	3,956	3,142	3,631
Exceptional Items					
Pre-tax Profit	2,673	3,048	3,956	3,142	3,631
Taxation	(689)	(763)	(1,005)	(792)	(915)
Exceptional Income - post-tax					
Profit After Tax	1,984	2,285	2,952	2,350	2,716
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	1,984	2,285	2,952	2,350	2,716
Recurring Net Profit	1,984	2,285	2,952	2,350	2,716
Fully Diluted Recurring Net Profit	1,984	2,285	2,952	2,350	2,716

Cash Flow

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
EBITDA	2,590	2,999	4,021	2,617	3,123
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(149)	(1,210)	(51)	147	(245)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	(109)	(125)			
Other Operating Cashflow	257	301	298	533	533
Net Interest (Paid)/Received	(1)	(1)	(2)	(1)	(1)
Tax Paid	(659)	(691)	(1,005)	(792)	(915)
Cashflow From Operations	1,928	1,272	3,262	2,504	2,496
Capex	(844)	(1,397)	4,155	(350)	(350)
Disposals Of FAs/subsidiaries	4	1			
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	(1,028)	611	4,155	(350)	(350)
Cash Flow From Investing	(1,868)	(786)	8,310	(700)	(700)
Debt Raised/(repaid)	(25)				
Proceeds From Issue Of Shares					
Shares Repurchased					
Dividends Paid	(33)		(738)	(588)	
Preferred Dividends					
Other Financing Cashflow	(1)	(1)			
Cash Flow From Financing	(59)	(1)	(738)	(588)	
Total Cash Generated	2	485	10,834	1,217	1,796
Free Cashflow To Equity	36	487	11,572	1,804	1,796
Free Cashflow To Firm	62	488	11,574	1,805	1,796

SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

Balance Sheet					
(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Cash And Equivalents	2,478	2,658	3,401	16,550	18,607
Total Debtors	742	1,535	1,462	1,758	2,027
Inventories	529	881	1,088	1,009	1,163
Total Other Current Assets	203	628	352	352	352
Total Current Assets	3,952	5,703	6,303	19,669	22,150
Fixed Assets	2,408	3,399	577	22	(161)
Total Investments			255		
Intangible Assets					
Total Other Non-Current Assets	239	145	160	160	160
Total Non-current Assets	2,647	3,544	992	182	(1)
Short-term Debt		1	1	1	1
Current Portion of Long-Term Debt					
Total Creditors	610	1,021	805	1,169	1,348
Other Current Liabilities	410	327	349	349	349
Total Current Liabilities	1,020	1,349	1,155	1,520	1,699
Total Long-term Debt	3	3		3	3
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities			23		
Total Non-current Liabilities	3	3	23	3	3
Total Provisions	179	211	240	163	163
Total Liabilities	1,203	1,562	1,418	1,686	1,865
Shareholders Equity	5,397	7,684	10,100	11,457	13,860
Minority Interests					
Total Equity	5,397	7,684	10,100	11,457	13,860

Key Ratios					
	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue Growth	22.2%	33.7%	36.6%	(16.2%)	15.3%
Operating EBITDA Growth	39.8%	15.8%	34.1%	(34.9%)	19.3%
Operating EBITDA Margin	50.5%	43.8%	43.0%	33.4%	34.5%
Net Cash Per Share (Rs)	23.28	24.97	31.99	155.65	175.00
BVPS (Rs)	50.77	72.29	95.01	107.78	130.38
Gross Interest Cover	2,656.58	1,870.54	1,876.95	2,932.81	3,481.84
Effective Tax Rate	25.8%	25.0%	25.4%	25.2%	25.2%
Net Dividend Payout Ratio					
Accounts Receivables Days	51.31	60.69	58.46	74.94	76.40
Inventory Days	129.20	114.56	110.26	131.92	118.51
Accounts Payables Days	142.77	132.49	102.25	124.19	137.32
ROIC (%)	84.2%	66.5%	52.1%	78.6%	130.0%
ROCE (%)	53.0%	40.8%	40.2%	23.8%	24.2%
Return On Average Assets	36.4%	28.9%	35.7%	17.3%	12.9%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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managed or co-managed public offering of securities for the subject company in the last twelve months	NO	NO
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