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## companies

# SRF looks to grow its chemicals business

## Planning major investments in next four years

**S**RF Ltd. (Gurgaon, India) is focused on strengthening and growing its chemical business and plans to make large investments into this space over the next four years. The company, which was founded as Shri Ram Fibres in 1970, started as a nylon tire cord fabric manufacturer and entered the chemical sector in 1989 with the production of refrigerants and has been expanding its chemical business ever since. SRF started as an off-shoot of the conglomerate DCM Ltd. (New Delhi, India), which was established in 1889 as Delhi Cloth & General Mills.

Shri Ram Fibres was renamed SRF in 1990 and has developed into one of the leaders in nylon tire cord fabrics. SRF sees the chemical business as the company's growth driver. Anoop Joshi, president and chief financial officer of SRF, tells *CW* the company has aggressive growth plans and aims to double its sales and earnings in the next five years. SRF reports total sales of 45.3 billion Indian rupees (\$676.3 million) and net profits of 4.2 billion rupees in the fiscal year ended 31 March 2016.

Chemicals form part of SRF's chemicals and polymers segment. The company has two other segments: technical textiles and packaging films. SRF's chemicals and polymers segment comprises fluorochemicals, specialty chemicals, and engineering plastics. SRF plans to invest a total of about 35 billion rupees in the next four years, almost 70% of which will be in the chemicals and polymers segment, the company says. "Every year, we generate about 10 billion rupees of cash, which the company will invest into the businesses, and a large majority of the investments will go into the chemicals and polymers segment over the next four years, particularly in specialty chemicals. The focus is on investing more in the specialty chemicals business because it is growing at a high rate, gives us good margins, and is the future

of the company," Joshi says.

SRF diversified into developing and manufacturing fluorine-based specialty chemicals because the company has expertise in fluorine chemistry. SRF, in 2005, invested in research and development (R&D) to develop fluorine-based specialty chemicals and started with about five scientists. It entered the market with three products manufactured at the company's site at Bhiwadi, in the state of Rajasthan, northwestern India. SRF's specialty chemicals business manufactures advanced intermediates mainly used in the agricultural chemical and pharmaceutical industries. The company, since entering this business, has commercialized more than 40 molecules, with another 50 at different stages of development. The specialty chemicals business now employs more than 250 scientists. It has manufacturing plants at Bhiwadi and within SRF's large chemical complex at Dahej, in the state of Gujarat, western India. The Dahej complex became operational in 2012 and is SRF's largest manufacturing site.

"The Indian specialty chemicals market is growing at 13–17% annually, and SRF's specialty chemicals business is growing at a rate higher than that," Anurag Jain, president and CEO/specialty chemicals at SRF tells *CW*. "We are investing heavily in this business in terms of capacity, people, and knowledge. So we are trying to expand our business base as well as maintain this growth rate."

SRF has been investing continuously to add specialty chemical production capacity. SRF commissioned several plants at the Dahej complex in March 2014. They include a multiproduct specialty chemicals plant and a chemical plant for the agchem industry.

SRF is also looking to make major investments in specialty chemicals in the next four



**JOSHI:** Aims to double sales and earnings in five years

years. "The investments will be made primarily in Dahej and will focus on products for the pharmaceutical and agrochemical industries," Jain says.

The company has used only 40% of the land available at the Dahej chemical complex, so the site can potentially attract much more investment. "There are external factors that will influence the timing of these investments in specialty chemicals as the agrochemical industry is currently going through a tough phase. Some projects in the agro space, which were to be converted immediately, have now been put on hold. Eventually, those projects will move ahead," Jain says. SRF says it works with global companies in the agchem industry, including BASF SE, Bayer AG, Syngenta AG, and Dow Chemical Co.–DuPont to develop intermediates that are complex in nature.

The pharmaceutical and agchem industries are the main end markets for the business's products, but the scope of the specialty chemical business is widening. "We find that some of our products are also being used in performance chemicals and electronic chemicals," Jain says.

SRF's board, in August, approved two separate capacity-addition projects. The company will establish a multipurpose plant for specialty chemicals for an estimated 1.8 billion rupees and a chloromethane plant at for estimated 1.7 billion rupees at the Dahej chemical complex. The new chloromethane plant will double SRF's chloromethane capacity, to 80,000 metric tons per year, and enable SRF to meet the growing needs of its pharmaceutical customers for methylene dichloride. The existing chloromethane plant is at Bhiwadi.

The new chloromethane plant is expected online in December 2017. The multipurpose specialties plant will allow SRF to develop and commercialize new molecules for the agchem and pharma sectors.

SRF exports a large majority of the specialty chemicals it produces. About 80–90% of the company's specialty chemicals are exported to the European Union, Japan, China, and the United States. Exports will remain the focus for the specialty chemical business after the investments over the next few years, but the company will also look to tap the potential in the Indian market, Jain says.

SRF's fluorochemicals business manufac-



**JAIN:** India's specialties market growing 13–17%



**A MAJOR PRODUCTION HUB:** The Dahej complex started up in 2012 and is now SRF's largest manufacturing site. The company uses only 40% of the land available there.

tures a range of fluorine-based refrigerants used in room air conditioners, car air conditioners, refrigerators, and chillers; propellants used by the pharmaceutical sector; and a range of solvents used for applications including in the pharma and agchem industries. The company's fluorochemical manufacturing operations are at Bhiwadi and Dahej.

SRF obtained a pharmaceutical propellant business through an acquisition from DuPont. SRF acquired DuPont's worldwide Dymel-brand hydrofluorocarbon- (HFC) 134a pharmaceutical propellant gases business for \$20 million in December 2014. Acquiring the Dymel brand, technology, and know-how has enabled SRF to establish its own current good manufacturing practices (CGMP) facility for pharmaceutical-grade HFC-134a. As part of the deal, DuPont supplies SRF with the product until SRF's production facility is approved. SRF constructed the facility to produce CGMP-compliant, pharmaceutical-grade HFC-134a at Dahej in March 2016. The plant is receiving approvals from customers and preparing drug master files. This process will take 18–24 months, SRF says.

SRF is the only Indian manufacturer of HFC-134a, and the company has developed its own technology for the product. "The acquired business syncs perfectly. We have a large-scale facility for HFC-134a that is used as the raw material for the pharmaceutical-grade HFC-134a," Prashant Yadav, president and CEO of the fluorochemicals and engineering plastics business at SRF tells *CW*.

SRF's pharmaceutical-grade HFC-134a is used in asthma inhalers, or meter-dose inhalers. The acquired business has good growth prospects because the meter-dose inhalers market is growing worldwide and India is the third-largest manufacturer. The country is likely to produce more meter-dose

inhalers since several drugs are expected to go off patent in the next three to four years, Yadav says.

SRF has also developed its own technology for the refrigerant HFC-32 and established a plant at Bhiwadi in March 2016 for its production. SRF, in the following month, announced it would build a pilot plant in India to manufacture the next-generation refrigerant gas hydrofluoroolefin- (HFO) 1234yf, for which demand is rising in car air-conditioning systems. Production will be based on SRF's proprietary technology. SRF says it is the only company outside the United States and Europe to develop its own technology for manufacturing HFO-1234yf. SRF has not disclosed where the pilot plant will be but says it will be near an R&D site for the fluorochemicals business. The company's chemical R&D sites are at Bhiwadi and Manali, near Chennai, in the southern Indian state of Tamil Nadu. The company also intends to build a commercial-scale manufacturing plant for HFO-1234yf.

HFO-1234yf is a low global warming potential (GWP) product and a replacement for HFC-134a. There is no market currently for HFO-1234yf in India, SRF says. "Whenever the market is ready, we will invest in a commercial-scale facility," Yadav says.

SRF says that it will have an edge over its competitors in this space. Honeywell recently licensed its technology to Navin Fluorine International Ltd. (Mumbai, India) to produce HFO-1234yf in India exclusively for Honeywell International Inc., and production is expected to begin later this year. "There will always be competition as all global companies compete in the Indian mar-

ket. Since our HFO-1234yf business is based on our own technology, we will have a strategic advantage," Yadav says.

SRF's fluorochemicals business has been growing at a double-digit rate for the past two years, and the company is targeting continuing double-digit annual growth in fluorochemical revenue over the next few years, Yadav says. SRF has not disclosed its current annual revenue from the business.

SRF sells about 50% of its fluorochemical products in India, and the rest is sold overseas. Car production in India is expected to grow significantly in the next few years, which will generate demand for these products, SRF says. If the Indian economy grows 7–8%, the automotive industry will grow at a higher rate, and the air-conditioning sector should grow about 10%, Yadav says.

SRF is preparing to meet this expected rise in demand. "We want to grow the fluorochemicals business quickly in the next 5–10 years, and this will call for big investments in the future," Yadav says. "The investments will include the commercial-scale HFO-1234yf project. We have recently added HFC-32 capacity at Bhiwadi to cater to the air-conditioning sector in India. We will possibly need to add capacity for HFC-32 at Bhiwadi and for HFC-134a at Dahej. Our solvents production facilities are operating at full capacity, and so when demand rises, we will look to expand solvents capacity."

The engineering plastics business within SRF's chemicals and polymers segment manufactures a range of engineering plastics mainly for the automotive and electrical industries, and the product range is based on nylon, polybutylene terephthalate, polycarbonate, and polyethylene terephthalate (PET) resins. SRF manufactures engineering plastics at Manali and at Panthagar, in the state of Uttarakhand, India. SRF says it expanded engineering plastics production capacity at Manali last year, and since the company now also sells its engineering plastics overseas, the location close to Chennai helps exports.

SRF also has an application and product-development lab for engineering plastics at Manali, and all products are developed in-house. "We are currently in the process of expanding the product and application development lab in [Manali, near] Chennai. We doubled our staff in this lab in the past three years. We are currently adding more



**YADAV:** Planning to invest more in fluorochemicals.

people and expanding infrastructure in this lab," Yadav says. "The GDP growth together with the upturn in the housing and automotive sectors in India will create demand for automotive and electrical products. The replacement of metals with plastics in the automotive industry also helps this business."

SRF's total sales grew only a bit in the fiscal year ended March 2016 compared with the previous fiscal year, and net profits increased 40% year on year. These compare with double-digit growth in total sales and the 86% rise in net profit in the previous fiscal year compared with the year before. The results for the fiscal year ended March 2016 were weakened by the major floods at Chennai in December 2015 that idled the company's manufacturing site at Manali for almost three months. Normal operations at the Manali production site resumed in April 2016. The Manali site produces SRF's technical textiles and engineering plastics.

SRF's first product, a nylon tire cord fabric, was originally used only in tires. The company later diversified into products such as belting fabrics, coated fabrics, laminated fabrics, and industrial yarns, and the business unit was renamed as the technical textiles business. The technical textiles business is SRF's largest segment in terms of revenue, accounting for about 38% of the company's total sales in the last fiscal year.

"SRF started production in 1974 with a nylon tire cord fabric facility at Manali, and in 1983 the company started up a second nylon tire cord fabric plant at Viralimalai, Tamil Nadu. 'We grew the nylon tire cord fabric business substantially and gained significant market share,' says Joshi.

The company further expanded its manufacturing footprint in the business through three acquisitions. SRF, in 1997, acquired a nylon tire cord plant at Malanpur, in the central Indian state of Madhya Pradesh, from tire manufacturer CEAT Ltd. (Mumbai). Two years later, SRF acquired a nylon tire cord fabric production plant at Gummidi poondi, Tamil Nadu, from the former Thapar DuPont joint venture between DuPont and Indian conglomerate Thapar Group. SRF also acquired a nylon tire cord fabric manufacturing plant in the Map ta Phut, Thailand, industrial estate through the purchase of Thai Baroda Industries in 2008.

SRF made another acquisition in 2008—a belting fabrics producer, Industex Technical Textiles (Pty) Ltd., at Port Elizabeth, South

Africa. Belting fabrics reinforce conveyor belts that are used by the mining and other industries to transport their raw materials and products.

SRF says it is the second-largest manufacturer of nylon-6 tire cord fabrics and belting fabrics. Despite the company's strong position in the technical textiles business, SRF says it is not planning to add production capacity in this business. SRF also decided in 2013 to close its nylon tire cord fabric manufac-

turing operations in the Jebel Ali Free Zone in Dubai, United Arab Emirates, because of a downturn in the European market and high fixed costs.

"The nylon tire cord business is growing only at about 3%. We may modernize our existing technical textiles production plants, but we are not going to add more production capacity," says Joshi. SRF announced in July 2016 that it had completed modernizing a technical textile plant at Gwalior, Madhya Pradesh. The company expects the technical textile business will sustain its financial performance.

SRF's packaging films segment produces polyester films. SRF entered the packaging films business in 1995 through the acquisition of an ailing plant of M/S Flowmore at Kashipur, Uttarakhand. SRF manufacturers biaxially oriented polypropylene (BOPP) films and biaxially oriented PET (BOPET) films.

"The polyester films business is growing globally at 6% per year, and in India it is growing at about 12–13% per year. Therefore, we intend to grow this business," says Joshi. The company is making several investments to expand the packaging films business.

SRF has established a special economic zone at Indore, Madhya Pradesh, to manufacture BOPET films. The company announced plans recently to build BOPET and BOPP film plants in a domestic tariff area at Indore. The BOPET film plant will start up in March 2017, and the 35,000-metric tons per year BOPP film plant will start up in March 2018.

The company has also established greenfield packaging films production plants overseas. SRF started up a BOPP film plant with a capacity of 25,500 metric tons per year in November 2013 at Durban, South Africa, and in July 2013, the company boosted its



**HIGH UTILIZATION RATE:** SRF's polyester films plant in Rayong Province, Thailand, is operating at full capacity.

presence in Thailand by starting commercial operations at a BOPET film plant with a capacity of 28,500 metric tons per year in the Hemraj Eastern Seaboard Industrial Estate, in Rayong Province. SRF says the overseas polyester films plants are operating at full capacity.

SRF says it is financially robust. "We are in a very strong position as far as our finances are concerned. The debt-equity ratio is about 0.74, and going forward it will only become lower because the company's capital expenditure will be largely funded through internal accruals. We follow a very conservative and cautious approach to debt," says Joshi. SRF's shares are listed on the Bombay Stock Exchange (Mumbai) and the National Stock Exchange of India (Mumbai). "Our share price has risen from about 200–300 rupees per share two years ago to currently about 1,450 rupees per share," Joshi says. The promoters of SRF hold about 52.3% of the total shares of the company, and the rest is held by foreign institutional investors, mutual funds, and the public.

SRF says that its strategy will continue to focus on growing in the chemicals space. SRF invested about 32 billion rupees in the last five years, more than 50% of which was to expand the company's chemicals business. SRF says that its plans reflect a commitment to continued growth in chemicals.

"We want to make SRF an innovation- and technology-led business," says Joshi. "The technical textiles business continues to be the largest business for the company in terms of revenue, but that is likely to change over a period of time as the majority of the capital expenditure is going into the chemicals and polymers business segment. So we expect the chemicals and polymers business segment to grow and likely become our largest business in the future."

—DEEPTI RAMESH IN GURGAON