



Big blue ocean

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Samsung Total Petrochemicals CEO Hong Sik Ko seeks a novel way to compete. Setting up a new specialty plastics compounding base in China is the first step

Samsung Total Petrochemicals' Daesan site is "not disadvantaged" versus new, larger projects

FACING A tsunami of cheap polymers coming from the Middle East, Asia's plastics producers need to find new ways of winning.

Rather than competing head-to-head on price, South Korea's Samsung Total Petrochemicals aims to develop a "**blue ocean**" strategy - creating new markets by way of product development - to serve the fast-growing electronics and automotive markets in China.

"We are very confident in our ability to compete in a different space than Middle East producers," said Samsung Total president and CEO Hong Sik Ko in an interview with ICIS at its company headquarters in Seoul last month. "A big part of our strategy is to codevelop specialty products with end-market users in China."

Samsung Total, a 50:50 joint venture (JV) between South Korean conglomerate Samsung and France-based oil major Total, broke ground in June on its \$11m (€7m), 28,000 tonne/year polypropylene (PP) compounding facility in Dongguan, marking its first manufacturing investment in China.

And Samsung Total plans to further expand its PP compounding capacity in Dongguan, following the completion of its new facility in 2009.

"We are considering doubling our capacity of 28,000 tonnes/year in two years after start-up in the first quarter of 2009, depending on the market situation," says Ko. "China is a huge and very important market for our PP products, especially in the electronic appliances area."

The company expects PP compounding sales of about 90,000 tonnes in 2008, and aims to boost this to more than 150,000 tonnes by 2010, with expansions in China, as well as South Korea.

Samsung Total exports about half its total polymers output, and of these exports, 70% goes to China. The company is the leader in PP compounds for small electronic devices in China, with around a 30% market share, according to Ko.

"Demand for home electronic appliances is still strong, and we're focusing more closely on this specialty market," he says. "We're not interested in the commodity area."

Having a production base in China, along with a sales office and technical support, will shorten delivery times and improve service to customers, says Ko.

"We view China not as an export market, but as one of our domestic markets," he says. "It is too important for us not to have a manufacturing and technical support base there."

Samsung Total aims to differentiate itself from Middle Eastern PP suppliers to China with local manufacturing and the development of high value-added specialty PP grades with customers.

It will initially focus on the electronics end market in China with its PP compounds, but aims to diversify into the automotive market as well.

"We already supply automakers in Korea and to some extent in Japan, and will work with Chinese automakers as well," he says.

Underlining how important product development is to Samsung Total's strategy, the company has sent the former head of research and development (R&D) at its Daesan site, Weon Lee, to lead the China project.

"Lee will be in charge of the China project as well as codevelopment of new products with customers," says Ko. "We are sending our head of R&D and not an engineer to build this business. This is a very different approach. And we will aim to meet customer requirements earlier than they expect."

Total has a long history of operations in China and this will help Samsung Total's China expansion efforts, says Ko.

As for the outlook for 2009, Ko believes the high-performance specialty polymer area will remain healthy on the back of a strong consumer electronics market in Asia and especially China.

"The Middle East will supply a huge amount of commodity polymers in 2009, but this won't matter so much in the specialty space," Ko maintains. "We want to compete in an area based on codeveloping specialty polymers with customers and meeting their requirements earlier than they expect."

However, commoditization in chemicals happens, and Samsung Total aims to be prepared. "The definition of a specialty is not functionality, as many believe. It is profit margin," says Ko. "We will regularly check whether our products can in fact be defined as 'specialty.'"

Samsung Total predicts that overall company sales will rise 47% to won (W) 5.5 trillion (\$5.5bn) this year, versus 2007 revenues of W3.75 trillion.

The company has an 850,000 tonne/year naphtha cracker in Daesan, which can also produce 450,000 tonnes of propylene. Propylene will increase by 100,000 tonnes as its new olefin conversion unit (OCU) comes on stream in August.

Samsung Total's new No. 3 300,000 tonne/year PP unit at Daesan came on stream in September 2007 and will supply its China PP plant. However, additional supplies can be sourced if needed, says Ko.

FEEDSTOCK DIVERSITY

While focusing on specialty plastics, Samsung Total, as an integrated producer, will also seek to improve the competitiveness of its Daesan cracker.

Naphtha prices have soared this year along with crude oil prices, putting the squeeze on Asia's petrochemical and plastics producers.

Samsung Total plans to boost its use of liquefied petroleum gas (LPG) feedstock at its Daesan cracker to combat soaring naphtha prices. The company has been running its naphtha cracker on 10% LPG feed since April.

"Feedstock diversity is a big issue for everyone in Asia now. We are seriously considering using up to 40-50% LPG feedstock at Daesan and will soon make a decision," says Ko. "If we go ahead, it could take two years to reach these levels as we increase LPG storage capacity."

Last Thursday, the first-half September open-spec naphtha contract was assessed at \$1,063.00-1,064.00/tonne CFR (cost and freight) Japan, down \$20.25-21.25/tonne. The second-half September open-spec naphtha contract was valued at \$1,062.00-1,063.00/tonne CFR Japan, down around \$20-21/tonne, according to global market intelligence service ICIS pricing.

Prices are still relatively high, but down from record levels of more than \$1,200/tonne in early July. Ko emphasizes, however, that size is not the ultimate driver of competitiveness, even in petrochemicals.

"There is no major cost advantage in building a 1m tonne/year cracker versus an 850,000 tonne/year cracker, which is worldscale enough," he says. "Our Daesan complex is not disadvantaged versus new, larger projects."

The Daesan complex, which has an 850,000 tonne/year cracker and derivative units, represents very low invested capital of under \$3bn, whereas the cost to build a new grassroots 1m tonne/year cracker has increased to over \$5bn, he says.

Samsung Total was formed in 2003 in a JV agreement between South Korea's Samsung General Chemical and France's Total. Initially called Samsung Atofina, the JV changed its name to Samsung Total in 2004. Samsung Total produces olefins, polyethylene (PE) and PP, styrene monomer (SM), ethylene glycol (EG)/ethylene oxide (EO) and aromatics.

BLUE AND RED OCEAN STRATEGIES

The goal of the **Blue Ocean** Strategy, developed by management experts W. Chan Kim and Renee Mauborgne, is not to outperform the competition in the existing industry, but to create new market space or a **blue ocean**, thereby making the competition irrelevant.

The concept contrasts with the "red ocean" strategy, which assumes that an industry's structural conditions are given and that firms are forced to compete within a finite market space.