UltraTech: A strong, reliable, innovative name in cement

Concrete technology is fast changing in order to cater to the sudden spurt in special concrete requirement from the construction industry. One of the leading names in concrete technology is UltraTech Cement, as a brand, which embodies strength, reliability and innovation. Dibyendu RoyChowdhury talks with Sanjay Mathur, Head - RMC and Anil Kuikarni, Head - Technical (RMC), UltraTech Cement (Concrete Division), and discovers what makes UltraTech a savant-like when it comes to grey cement, ready-mix concrete and white cement in India.

UltraTech Cement has been awarded the Superbrand status. What are the brand elements (qualities, experiences and attributes) that make up UltraTech unique?

The UltraTech brand is an energetic, eclectic mix of modernity, quality and technological superiority. It combines the traditional quality of durability and the latest ask of creating beautiful, functional structures that will help shape a new and beautiful India. As a foundation to finish player in primary construction material, we engage with our stakeholders through a variety of means, including social and digital media that help in connecting with the youth. We are also known for our support to sport through our consistent association with cricket.

UltraTech is a leader in sustainability efforts in the cement industry. We are constantly looking at ways to lower our environment footprint, create a safer world and contribute to communities around our plants.

What are the emerging concrete technologies? Where does UltraTech stand in adopting those technologies?

There has been a significant change in construction methodologies. With the rapid use of aluminium formwork shuttering, there has been a big spurt in the application of self-compacted concretes in the building sector. UltraTech Freeflow is widely used in such applications where the concrete consolidates by itself, hence saving a lot of labour and reducing the decibel levels during the concreting process.

With the advent of towers and taller structures in cities, the demand for high strength concretes has increased. Columns and members with compressive strengths as high as M95 are being used in construction nowadays. UltraTech’s Hypercon is being very widely used in concretes for such applications.

The sizes of rafts are now becoming bigger, so we see a good demand for temperature controlled concretes. We have been able to cater to all such needs with UltraTech’s Thermocon, which is a temperature-controlled concrete specially designed to arrest thermal shocks to concretes in structures with big depths.
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We also see that the pumping lines are becoming more complicated and longer than usual. Hence, we have seen off take of UltraTech Plus, our concrete solution to pumping challenges.

We now see more durability based specifications of concretes in India. UltraTech’s Duracon, which is a concrete designed to resist environmental attacks and hence increases service life of structures, is one of our most specified products.

For ports, customers are looking at anti-washout, impermeable and waterproofed concretes, and UltraTech Aquaseal is being widely recommended for such applications. Highways are being built faster with slip form pavers and hence demand for pavement quality concretes, thin white topping or ultra-thin white topping concretes for internal roads are now in vogue, and we have solutions for these types of applications, namely UltraTech Whitetop. We are also associated with repairs of concrete roads with our product UltraTech Rapid. We see a great demand for steel fibre reinforced concretes for industrial floors where some of the best technologies like laser screeds are being used to build flat floors. Ultra Tech Fibrecon and I-Floors are our solutions for such applications.

Innovation is expected to be one of the major drivers to competitiveness. What is UltraTech’s philosophy for introducing new products?

Our speciality products are a result of serious interactions with our customers, deep diving into their needs and then finding solutions that satisfy their needs. We have our own R&D centre in Mumbai and central laboratories located in all cities which are consistently innovating and experimenting with solutions that are aimed at delighting our customers.

We have launched many innovative solutions. One of them is UltraTech ZIP which is RMC in a bucket — this is specifically aimed at the small-quantity users of concrete. They can now have the best-of-quality concrete from the house of UltraTech in as small quantities as they would like. Another innovation is UltraTech Rapid which is designed to attain high early strength and hence speeds up construction and reduces redundancies at sites.

We have the decorative range of concretes like UltraTech Décor and UltraTech Colourcon which come in very attractive UV colours and ethnic patterns as well. We firmly believe that concrete need not be always be grey, and we can also “build beautiful” with concrete.

We have UltraTech Flowfill which is fast...
becoming a substitute for earth fills at construction sites because availability of earth filling material also is becoming scarce and has a lot of transportation and compaction issues associated along with. UltraTech Insulate is our new solution to reduce rising temperatures within residential buildings, this is a rooftop solution aimed at thermal insulation in top floors of buildings.

UltraTech is the largest manufacturer of concrete in India. What are the key trends in the concrete market as per the end-user sector in India?

Metro cities are going vertical, hence there is a shift towards concretes which are aimed at improving construction efficiencies at sites. Consequently, concretes are expected to reduce some amount of steel, and compressive strengths specified are now higher than what they were a few years ago. Concretes are now expected to be more durable, and we see a lot of cementitious material usage in concretes nowadays.

There has been a pleasant surprise in the use of concrete for decorative works and awareness of the latest trends in concrete has increased. This has helped us get very quick acceptance for our speciality concretes. Lesser number of skilled labour available, newer types of shuttering technologies and reduced size of concrete members have created a need for self-compacted concretes. The traditional methods of waterproofing are slowly being replaced by waterproofed concretes, and we could see a demand for concretes doing the waterproofer’s role as well.

With the government’s impetus on infrastructure, we see a demand for concrete solutions for roads as internal roads now get repaired faster. Precast structures in major cities would generate the need for high early strength concretes while metro rail has stepped up the demand for durable concretes.

In 2011, the urban population was 377 million, or 31 percent of the total population. By 2025, 42.5 per cent of the population is estimated to be living in cities. How is it going to change the dynamics of concrete segment?

As mentioned earlier, taller structures will be built to accommodate more people in cities. Hence there would be a great amount of pressure to reduce column sizes and increase living space which would drive the demand to produce high-performance concrete. With the pressure on cities increasing, infrastructure needs will have to keep pace and hence metro rails, new flyovers, and concrete roads within the cities and between cities will be the central demand drivers. Today’s concretes will be replaced by concretes which can do a lot by themselves, like self-compact concrete. High-performance concretes, while topping and ultra white thin topping concretes for roads, rapid road repair solutions for roads within cities and high early strength concretes for internal roads would be sought after. More and more building elements would get manufactured outside the city limits and only get assembled at sites and hence precast would be a major segment to look at in the coming days.

Where do you see the concrete technology in general and UltraTech Cement in particular by 2020?

Concrete technology is fast changing in order to cater to the sudden spurt in special concretes requirement from the construction industry. Supplementary cementitious material is being used in concrete nowadays, and we also find more microfine material being used to improve durability. The quality of inputs in the form of coarse and fine aggregates is becoming better and consistent in order to meet the needs of special concretes. Quality control measures are increasing, and a lot of organized players are resorting to third-party certification of concrete plants. The use of different types of admixtures such as high range water reducers, viscosity modifiers and rheology modifiers and waterproofing admixtures are now being used like never before.

UltraTech enjoys a good share of market in speciality concretes — thanks to the R&D that goes into the concrete technology. With our pan India presence and focus on quality and customer service, we are geared to lead and meet the demands of the market.