

ALL-ROUND OFFERING

Focusing on finding cost effective solutions that do not compromise on quality will be the differentiating factor for cement suppliers in the future. Working collaboratively with customers to devise customised solutions that consider specific application needs is critical to future sustainability.



Mike McDonald, manager at AfriSam's Centre of Product Excellence, says that the Centre has a number of key drivers that all work towards increasing customer satisfaction and productivity. An ongoing hot topic is environmental stewardship and a number of AfriSam initiatives underpin the company's intent.

"Cement and aggregates are scarce resources and AfriSam believes that their use should be optimised. By gaining a thorough understanding of the material properties and how to apply them as well as an understanding of concrete technology, we can ensure viable solutions," McDonald points out.

The Centre of Product Excellence is therefore actively involved in day-to-day customer interactions in terms of technical queries and support needs. This support function is undertaken by a team of skilled and experienced individuals who fully understand the application of product.

Leveraging its intimate knowledge of its own products, AfriSam works closely with commercial admixture companies to develop activators that will ensure normal concrete performance even when high levels of supplementary cementitious materials are added.

A further function of the Centre of Product Excellence is ongoing product development. "We invest in finding fit for purpose concrete solutions, a journey that begins with a detailed site visit by one of our experienced technical consultants," says McDonald.

The consultant collects samples of material and ascertains specific information on curing temperatures, mixing temperatures, as well as any additives and accelerators being used. The gathered data and samples are subjected to analysis at the AfriSam's material laboratory at the Centre of Product Excellence and the consultant is then able to draw up possible solutions.

Aligned to producing customer centric solutions is the Centre of Product Excellence's emphasis on knowledge sharing to maximise product implementation. "By familiarising our customers with our products and solutions we can together uplift the standard of concrete solutions in the industry," says McDonald.

Courses facilitated by the Centre of Product Excellence range from a high level course for engineers who already have a working knowledge of all



AfriSam's Centre of Product Excellence undertakes ongoing product development in order to provide fit-for-purpose concrete solutions.



As part of the company's service offering, an AfriSam technical consultant will visit a customer's site to assess the specific intended position of the product and any challenges that may be encountered.

THE IMPORTANCE OF LIGHTNING PROTECTION

Lightning is an unpredictable force of nature, which is a constant danger to structure, electronic equipment and human life. Therefore it is imperative that lightning protection systems be installed to limit the risk of damage.



A risk analysis and lightning protection system has been completed by Advanced Lightning Protection, a proud partner of DEHN AFRICA at BASF South Africa's Performance Materials' plant in Elandsfontein.

The design, supply, installation and maintenance of the earthing and lightning protection systems at BASF has been implemented and will provide adequate protection to the plant.

Advanced Lightning Protection compiled a risk analysis at the plant before designing the protection system. The protection level was calculated by means of a risk analysis of the plant, including soil resistivity surveys, which determined the soil resistivity values prevailing on the plant. It was also necessary to determine the corrosiveness of the area, in order to determine the conductor types suitable for the plant.

The design of the earthing and lightning protection system for

the plant was performed in accordance with SANS 62305, 10313 and 10199 specifications.

The total protection design at the plant consists of a structural lightning protection system, high quality earthing system, electrical earthing system, surge protection system and equipotential bonding of all protection systems. The structural lightning protection system comprises an air termination system, designed to intercept a lightning strike and dissipate the lightning current into the ground mass safely by means of the down conductors and lightning protection earthing systems. The electrical earthing system was designed to allow the safety devices to operate correctly and for the dissipation of any fault currents that may occur. Its purpose is to save equipment from damage and to protect personnel from injury.

For further protection of electronic equipment, it is essential that the power supply, telecommunications and data lines are equipped with adequate surge protection devices. It is vital that the entire electronic system is at the same potential to ensure that the lightning protection is effective. This is achieved by equipotential bonding of the different earthing systems onto a common earth bar. The installation of the protection system was performed under strict quality control measures to ensure that the conductors, types of connections and bonding was installed correctly.

Advanced Lightning Protection highly recommends that all lightning protection system installations be inspected and tested on a regular basis. ■