

## CEMENT & CONCRETE



# READYMIX VERSATILITY AND CONVENIENCE FOR COST SAVINGS ON SITE

*The low barriers to entry have made readymix concrete supply a very competitive and, consequently, a low margin business. There is currently a surplus of capacity over demand but customers need to be wary about buying product purely on price.*

“ Even though concrete manufacture is a relatively simple process, it has to be done correctly and there are many things that can go wrong which can have serious implications for the success of a structure. We always recommend that developers avoid taking short cuts with concrete suppliers. Do not try to 'do it on the cheap' as this could affect the integrity of the overall structure. It is especially important that developers and contractors use a reputable readymix supplier,” Grant Naser, Chief Operating Officer at AfriSam (South Africa) (Pty) Ltd says. “Concrete is certainly one of the most versatile construction materials and can be used for very high specification and high strength purposes as well as in relatively low specification, unsophisticated applications as well,” says Grant.

### MAJOR ADVANTAGE WITH CONCRETE

The major advantage with concrete is its durability, i.e. its resistance to corrosion and degradation relative to other building materials such as steel which needs ongoing protection in the form of treatment and painting. Concrete is used in bricks and blocks, in screeds, mortar, and plaster, for floors, reinforced structural elements and in highly sophisticated high strength structural components. It can be cast in virtually any shape and is ideal for aesthetically pleasing off shutter concrete structures. In first world countries there is a growing trend towards the sophisticated application of concrete and the use of concrete that, through its ability to be easily placed, results in labour savings. “Examples of this are self leveling and self compacting concrete and we are also seeing a move towards architectural concrete which includes special finishes and pigmented concrete,” Grant explains.

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### NOT CONSIDERED COST EFFECTIVE

"However, in a developing country such as South Africa, we do not suffer the labour savings pressures which are apparent in first world countries. So, while self placing, self leveling and self compacting concretes are available, these are generally not considered cost effective. This is due to the fact that the additional costs associated with the special concrete and the additional shutter preparation these products require tends to outweigh the labour cost savings that can be achieved," Grant believes.

"While there are applications in certain circumstances where this product is being used we do not predict a significant penetration of this type of product into the local market. There is an emerging trend in architectural concrete with special finishes and this is probably related to a greater appreciation for the aesthetics that architectural concrete offers. It is easy to obtain a smooth uncluttered finish on a good off shutter beam or column, and pigmented concrete as well as textured or exposed aggregate concrete have their own aesthetic appeal," Grant says.

Grant believes that there is an appreciation from certain clients for these aspects and recognition by architects and engineers that one can limit cladding, thereby reducing the weight of the structure through selecting architectural concrete finishes. "Again, the move towards this has not been overwhelming and most new structures in South Africa still tend to be clad. However, there is a move to engage with architects to celebrate architectural concrete and all stakeholders obviously look to Europe for some of the best examples."

### DEFINITE ADVANTAGES

Readymix concrete, whereby concrete is mixed centrally and transported from a central batching yard in a wet state to be placed on site, has definite advantages for the customer. "Essentially, the customer is not required to manage any sub component materials which, under site conditions, can be difficult to control and which can also present an environmental threat. They also do not have to manage waste or return concrete typically generated on a construction site," Grant explains.

Grant says that the introduction of readymix concrete started in the US in the late 1950s to 1960s and it was brought to South Africa shortly thereafter with the first readymix batching plant sited in Stafford, south of Johannesburg. "The advantages of pumping readymix concrete include the placement of high quality concrete of uniform consistency at a faster rate than normal concrete into areas which are not readily accessible by other means. Pumped concrete is fluid, yet highly cohesive; to allow for easy placement, compaction and finishing, and it results in minimal bleeding and segregation. All these factors make it ideal for congested sites with limited space for transporting concrete as well as for high-rise projects, and it also facilitates a reduction in both plant and labour needs," Grant says.

### CONCRETE DOES NOT TRAVEL VERY WELL

"In South Africa the amount of cement that goes through the readymix channel currently stands at just less than 20% whereas in developed countries this figure can be as high as 60%. This can be partially attributed to the geographical spread of South Africa as concrete does not travel very well. This is coupled with the entrenched site batch culture that exists among the major construction companies who are encouraged by the fairly accommodating environmental laws on building and construction sites to retain the status quo," Grant adds.

In the last six years, this figure rose from 12% where it had been for many years and rapidly expanded to the current 20%. "The rapid growth in the building segment accounted for the bulk of this growth with many building companies forced to tackle fast track projects. This meant that they have, in many cases, moved away from erecting their own batch plants," Grant says.

A negative impact has occurred because there are low barriers to entry in the readymix market and when opportunists realised that there was a demand, additional capacity was introduced. "This means that the market is currently oversupplied, the penetration is not growing and the demand for readymix is declining in line with the decline in the demand for cement. In fact, it is estimated that cement demand will decrease by between 8 and 9% for the current year. This should hopefully bottom out in 2010 when the housing market starts to find its feet again and in 2011 we should see a decent growth pattern once again," Grant adds.

### EFFECTIVE PLACEMENT OF THE CONCRETE

"We have a sustainable business model at AfriSam and we believe that we are the premier readymix operator in the industry. We focus absolutely on the quality of our product and associated service which means that the product meets not only its end use specification in terms of strength and durability requirements, but also its workability requirement which allows for the effective placement of the concrete by the customer," says Grant.

AfriSam's Readymix products allow builders, developers, architects and engineers to use AfriSam's expertise in computerised weight batching, concrete pumping services, technical backup and quality assurance. "We have a number of targeted readymix products developed specifically for niche applications including Suspended Slab Mix for slabs above ground level; Surface bed Mix for ground floor slabs; Starmix for residential applications; Retainer Mix for external concrete walls and other retaining applications; Post Tension Mix where early strength gain is a construction requirement; and Foundation Mix for non-residential foundations," Grant explains.

"Our particular area of expertise is the ability to supply high volumes of concrete for major pours at a high rate of discharge," Grant says. "On several occasions we have had to supply very large laser screeded floors or big bridge decks at rates of in excess of 50 m<sup>3</sup> per hour. We have achieved this with ease without compromising on both our stringent ISO 9001 quality and durability requirements as well as our adherence to our OHS policies," says Grant.



Grant Naser, Chief Operating Officer at AfriSam (South Africa) (Pty) Ltd