



Quality Stone & Readymix

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Have you heard of manufactured sand?

Remember there are only 2 ways to acquire something, or you grow it or you mine it.

Manufactured sand comes from aggregates.

Let's explain:

Manufactured sand has the same advantages as crushed stone. It is the same stone, just in smaller pieces. It reacts chemically with the paste to form a stronger bond. When crushed stone and crushed sand are used together in a concrete mix the tensile strength is 2 to 3 times higher than concrete made without crushed particles. Concrete with manufactured sand crushed stone cracks less because of this bond leading to few errant cracks and a longer lasting concrete structure.

The fewer cracks you have, the fewer spots for water to get in to weather the concrete and leach out cement paste.

Concrete made with manufactured sand and crushed stone is documented to achieve 15 to 45% more strength versus concrete without manufactured sand and crushed stone. Tensile strength is typically twice what is achieved with natural sand. This increase is from the chemical bond present between paste and aggregate. By decreasing the amount of cement in a mix, shrinkage is decreased and overall cracking is further decreased. The less cracking the stronger and more durable the concrete is.

Concrete made from natural sand has more impurities and clay which negatively affect the quality of the concrete mix.

The specific processes used to create the crushed materials make a significant difference in how the material act and react in a mix. In the past, manufactured sand was a byproduct which was not processed specifically to be used in readymix concrete. As science has advanced, new processes and guidelines have been put forth for manufactured sand for concrete and the end concrete product has gotten better to the point it far exceeds the quality produced with natural sand.

While piles of "by-product" manufactured sand are still in abundance in local quarries, those making it for concrete don't make it as a by-product. They make it as a primary product to perform properly in every mix, every pour. It places easily, doesn't segregate, and brooms right and trowels smooth without grit roll ups. The days of the concrete looking like all stones and no sand, and water flushing out of the concrete in excess (bleeding) have gone away for these specific use manufactured sands. Now its advantages of durability, strength, decreased cracking and aesthetic qualities are being sought out and exploited by more and more professionals.

Daily, more and more concrete in the world is made utilizing manufactured sand instead of natural sand.

www.aspasa.co.za

P O Box 1983

Ruimsig

1732

email: office@aspasa.co.za

Tel: 011 791 3327

Accounts: 011 791 0858