Research Partnering Conditions

If you plan to either use the company name or that of any its officers to raise money for research then we expect you to acknowledge this document and agree to abide by the spirit of it by signing to this affect on the last page and returning the signed copy to us.

We ask this because a large number of research project have been initiated around the world and we are concerned that they have not been as effective as they could be so far and that many of the researchers involved have not been honest with us or in what they have reported. For instance some researchers as Cambridge university claimed there was no information available from us in spite of the copious amounts of it on our web site. More recently another researcher from Imperial College London has been reported as claiming to invent our carbonating cement technology. Others again have published using the name of our managing director John Harrison without his permission. This sort of behaviour is not acceptable.

We realise it is important for researchers to elevate their own personal kudos and be recognised but warn that they will not achieve status in their field or the community at large by claiming an idea is theirs when it is clearly not, by not making reference to the work of others that preceded them. In this context deliberately quoting older papers and presentations of ours that are no longer relevant or correct or otherwise generally behaving like charlatans is not acceptable. For a summary see Comments on Research Papers and Progress.

We warn the research community that our patent claims, which have now been allowed in many countries, are very wide and we have tested just about every combination of cements and aggregates possible within the range of them. Given this there is not much new that could be tested and as guidance on how to generically formulate in all possible permutations has been on our web site for years we do not think that useful new ip is possible.

There are three different formulation types discussed in more detail on our web site and they are Tec-Cements, Eco-Cements and Enviro-Cements. These formulation types are not only based on the amount of substitution of PC (or other hydraulic cement) by MgO, but on the particle packing. Because so far lamentable ignorance has been displayed it is imperative for researchers to try and understand particle packing and that porosity that results in permeability is essential for carbonating cements.

Our corporate research has been wide ranging but that is still a lot of detail to be determined in relation to our cement system and therefore much scope for good student projects. In relation to our Tec-Cement concretes studies on durability, shrinkage and cracking, autogenous shrinkage, long term Eh and pH conditions, modulus of elasticity, creep and affect of additives would all be useful. Strength is not the only and arguably no longer the most important property of modern concretes to be considered. Properties impacting on sustainability have become more important such as cracking and durability and confirmation of our finding that the most profitable and safest form of sequestration will be sequestration in the built environment is starting to happen. Our carbonating Eco-Cement concretes will be very important in this context and as long as sufficient MgO is present the most important property to get right is permeability.

To assist correct formulation and in particular particle packing TecEco are prepared to provide free TecBatch software to students and academic staff whilst the program is still in a developmental stage. In turn they can assist us by providing feedback. TecBatch will be a powerful tool for design engineers and engineering students, concrete researchers and batching plant operators interested in improving the profitability, versatility and most importantly, the sustainability of concretes. It will be able to model any concrete, including those using the ground breaking TecEco Tec, Eco and Enviro environmentally sustainable cements.

The advanced algorithms in TecBatch will optimise the use of materials, minimise costs and increase profits. The program will allow users to specify the properties desired for their concrete, then suggests optimal solutions. We endeavouring to make virtual concrete a reality with TecBatch. This will make it a lot easier for you to run a cost effective project.

Other relevant properties such as ease of finishing, rate of gelling with high fly ash etc. are also of interest.

Most concrete these days is pumped which is good for MgO as addition increases shear thinning. Some idea of the nominal slumps that can be achieved with working (pumping) and the rate at which mixes then reduce nominal slump would be useful. Our experience so far is that finishers still get plenty of time however third party confirmation would be useful.

The affects of and interactions with additives are somewhat unknown. Our hope is to engineer into concrete the properties we want without additives because MgO will do a similar job to lime in terms of plasticising. As most additives to not have any beneficial affects past curing and are potential carcinogens, research in this area would be very useful.

We believe it will be cheaper to treat with us when it comes to commercialisation. Moreover by collaborating in the true sense, not just using our name or reputation we can teach you how to "do it right", direct you towards more useful research and save you a lot of money.

I…………………………………of…………………………………………(name of institution/organisation) have read the above and in exchange for assistance am prepared to conduct research with TecEco on a truly collaborative basis.

I will not try and usurp the intellectual property rights of TecEco and will give proper acknowledgement in any papers I produce to TecEco and its officers.

I will consult with TecEco and provide a copy of all relevant intellectual works that I produce.

I intend to follow the spirit of this document.

Name:
Designation:
Institution:
Date: