



Dry Tech Aerogels (Pty) Ltd



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Dry Tech Aerogel (Pty) Ltd (DTA) a South African company with international branches in the UK, India and Sweden is now offering a line of dispersible pigments that are designed with a Polymer Cellulose and Aerogel based system. Available in a variety of colors, our pigments have a surface treatment that is compatible in many applications, it contains aerogel associated with unbelievable attributes that contributes towards a lot of the coatings special abilities. DTA is a specialist company designing and manufacturing a variety of aerogel special coatings for several industries in the Agri, Chemical, Steel, Power, Roof Tile and many other industries.

Introduction to our Aerogel Seed Coatings

In times of increasing world population and with the need of increased production rates the market for seed treatment is increasing continuously, especially for fungicides. It is therefore important to improve the harvests by for instance more efficient seed treatment in a more environmentally friendly method than the previous used methods. The seed treatment should be similar for all kinds of seeds.








Not that much research has been done in the area of seed coating application yet and therefore it is important to focus on the improvement of seed treatment formulations with the aim to achieve formulations which are effective and have a low impact on the environment to guarantee sustainability. As additives polymer celluloses and silica aerogels are promising candidate's seed coatings which will improve the adhesion and homogeneous distribution of the agrochemical active on seeds and will reduce dust formation. It is important that seed coating does not influence the activity of the active ingredient and the process of germination. Dry Tech Aerogels having a supreme knowledge of aerogels and its attributes and is one the worlds authorities in the manufacturing and application of aerogels and making of special coatings. With these knowledge we designed a seed film coating and add it to their range of products, using the latest aerogel technology combined with the ancient San pigments and polymer cellulose.





In order to develop a seed treatment formulation the surface of seeds have to be understood and the properties of the formulations have to be connected to the surface. It is therefore important for DTA to have developed a matching coating for all kinds of seeds. We offer pigments which can be optimized to your manufacturing process to obtain the best compatibility and value. Once we gain a basic knowledge of your application, we can provide the perfect product to meet your needs. We can use your preferred biocide and add it into our aerogels seed coating.

Advantages to Using Our Seed Coating Colorants

- Hydrophobic, no water take-up after coated
- High wear resistance, durability increase the expiry date
- excellent encapsulator of biocides and release over a much longer period (one gram of aerogels have an internal surface area of 800 – 1 000m² and can therefor absorb more and release over a very long period)
- anti-soiling, anti-algae, no fungicides can't grow on it
- no electro static interactions
- no build-up of heat in storage
- no colour fading, block to UV, making blue to stay the colour blue that was originally applied
- flame retardancy, aerogels world's best insulation material
- will not absorb water or moisture under high humidity
- allow the germination of seed not to be suppressed
- the film will be breathable and will allow internal moisture to be released
- silica aerogels is also a 100% green product made from silica sand and is one of mother earth's most abundant raw materials
- with this aerogel technology we also use original natural San pigments. So looking from a green prospective our coating is an absolute green product.
- very little dust, no pollution
- biocides is encapsulated in aerogels, release over time increasing expiry date
- aerogels will encapsulate CO₂ an important building block for plant growth
- excellent adhesion
- No harmful side effects

Table DTA of San Pigment Colours (Proudly South African)

SAN PIGMENTS	COLOUR	PROD NUMB.	% PIGMENT
Summer Blue		Aer 1001	58% ± 2%
Sky Blue		Aer 1002	58% ± 2%
Plum		Aer 1003	46% ± 2%
Charcoal		Aer 1004	58% ± 2%
Grey		Aer 1005	46% ± 2%
Field Green		Aer 1006	46% ± 2%
Yellow Ochre		Aer 1007	46% ± 2%

SAN PIGMENTS	COLOUR	PROD NUMB.	% PIGMENT
Yellow		Aer 1008	46% ± 2%
Kalahari		Aer 1009	46% ± 2%
Deep Rose		Aer 1010	46% ± 2%
Pink		Aer 1011	46% ± 2%

Colours can be mixed on special request.

Our Services

Dry Tech Aerogels is an international company with branches in India, United Kingdom with its head office and manufacturing plant in Gauteng South Africa from where we service the relevant countries. In South Africa we have branches in Gauteng (2), Southern Cape and the Western Cape. We are a client driven company that not only providing products with the latest technology but also design new products for client needs.

Contacts

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Hydrophobic Silica Aerogels World's best Heat Resistance Material
Hydrophobic Silica Aerogels World's best insulative Material
Hydrophobic Aerogels hold 22 World Records for Best Material in its Class

To know more about aerogels contact us!