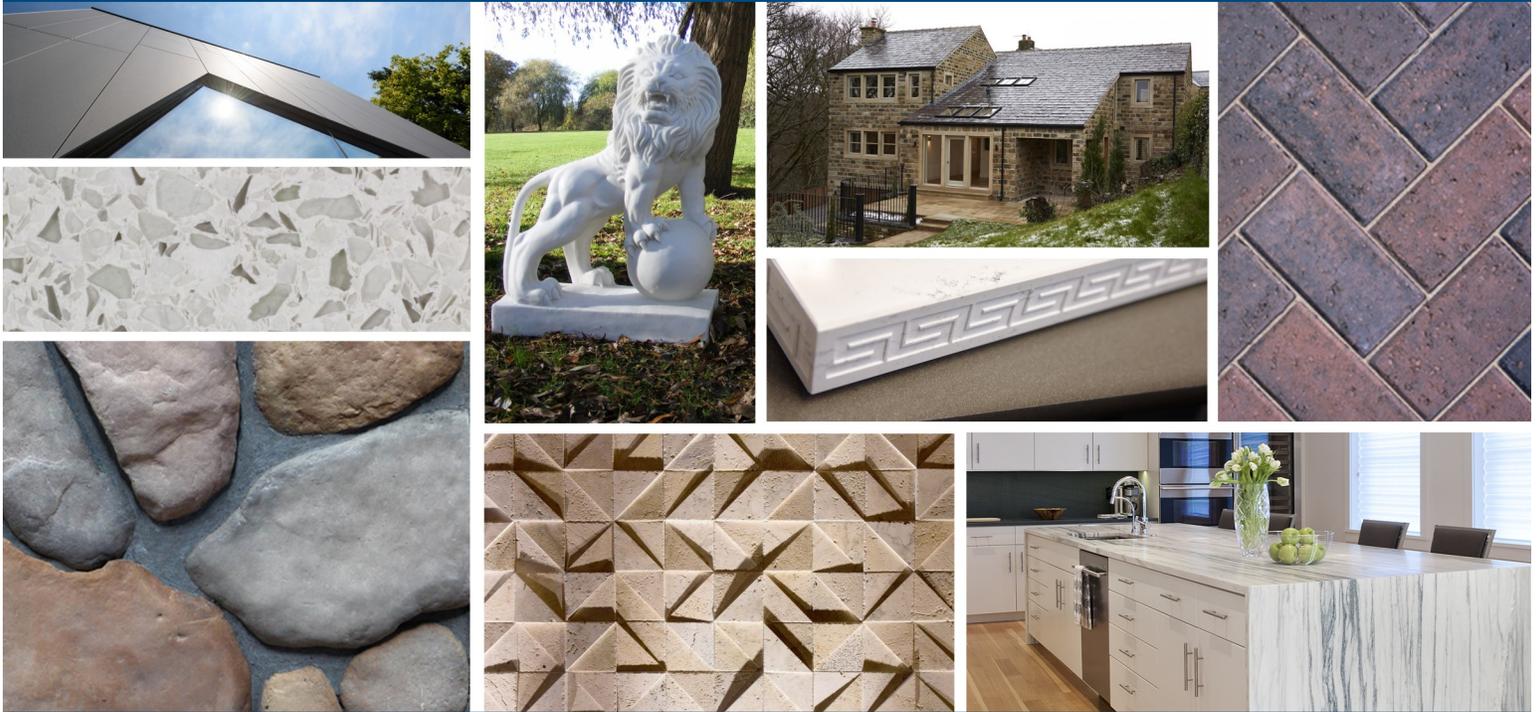


AdRok



AdRok is a plaster additive.

**AdRok changes the properties of Gypsum;
delivering a new product that will revolutionize the
building industry with cure times of 20 minutes or
less!**

If you can imagine it - Make it

What more could you build?



AdRok

Basic Mixing Ratios:

- 1 Tablespoon of AdRok,
- 1 x 25kg Bag of Alpha Gypsum,
- 5 x 25kg Bags of Sand or Fly Ash,
- Approx. 35kg of water (dependent on types of Gypsum / Sand).
- Total Kg: 185kg.
- 2kg of AdRok = 130 Tablespoons
- 1 Tablespoon creates 1 mix
- So 2kg offers 130 mixes when used to the ratios shown above.

Using nature to work for you.

Introducing AdRok;

A gypsum-based hybrid additive formula that has been designed to meet multiple needs of the construction industry, architects, and civil engineers alike. AdRok is a low cost, fast setting gypsum additive that displays properties of concrete, natural stone and gypsum alike that offers a wide range of fast setting, plaster based products for use in the construction industry. Standard Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) is a mineral that has already found many uses in the construction industry, from use as a retarding additive in cement to being the main compound used in industrial building plasters and wallboards (plasterboard). With the addition of the AdRok formula, the processed Gypsum undergoes major changes at the molecular level, changing the way it bonds with water molecules to enhance its properties further. We are keen to point out that this is a non-toxic product that is safe to work with in all environments

Manufacturing AdRok;

The base elements are mixed and dissolved into a heated solution, this chemical reaction changes the existing chemical compound into a new substance. The molecules are manipulated during crystallization and incubation period, resulting in the formation of the AdRok crystals. The crystals are further processed, ground and mixed into a Ph neutral mineral to complete the “AdRok” Formula. The formula remains “inactive” until the Activator solution is added to the mix of Gypsum & AdRok. Once the Activator is added – typical setting time of the gypsum element reduces from the manufacturers recommended 60---70 minutes, to around 5--- minutes. The AdRok formula creates an exothermic chemical reaction with the Gypsum or calcium sulfate dehydrate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) changing the crystalline structure at a molecular level. The monoclinic lattice layers further change form and new bonds

Speed & Versatility

The AdRok can be used to create many of the elements used in constructions industry today. The set time for any application can be rapidly increased when compared to concrete, from a time frame that can be pre-determined from 3 minutes up to 2 days. The MPA is upward of 38 to 43 mpa. AdRok sets much faster and stronger than concrete.

Fire Resistant

Due to the natural composition of AdRok, it offers a high-quality solution to prevent the spread of fire in buildings and effectively protect the householder from a fire. It is also possible to create monolithic buildings that incorporate cooking areas and fireplaces due to the AdRok's exceptionally high 2000+ degrees C resistance to fire and heat.



Cost Savings & Comparisons

- Normal brick manufacturing requires additional cost of building and firing a Kiln
- The AdRok bricks are safe non-toxic and require no fossil fuels in the process.
- Production time reduces from 3-4 days (traditional bricks) to 4-6 minutes de-molding time with AdRok, and after a further 10 minutes the bricks are set "build-ready" – Allowing for brick production onsite.
- Additional aggregates such as rubble, stone chippings or waste/manufacturing bi-products can be added to reduce the required volume of the formula and gypsum.
- The formula can be "foamed" to make aerated blocks similar to aerated cinder blocks – further reducing the quantity of materials needed.
- Due to the high compressive strength of the finished product, polystyrene or cardboard filler sections can also be added to reduce the required volumes of product.
- Using AdRok to manufacture bricks, using a production line could realistically output up to 10 / 20 bricks per second, per production line incrementally.



2 Harder
Than
x Concrete

Ultimate Usability

Not only is the final product waterproof, unlike untreated Gypsum, it can also be mixed with salt water, dirty water, brackish water and can also set fully underwater.



AdRok materials make your home or building fireproof and eliminate the need for insulation. The AdRok material is approximately two times harder than standard pour concrete and offers a lower cost of the finished blocks both internal and external, plus the time saved during production. It is fire proof, highly insulated, has great acoustic attenuation properties and the ability to clone or copy existing materials.



AdRok

FASTER - GREENER - BETTER

A Tachyon Aerospace Brand



TACHYON
A E R O S P A C E

