



*'possibly the best  
chemical-free liquid  
coal additive in the  
world'*

**90%** emissions reduction

**70%** vanadium reduction

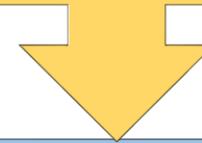
**55%** GCV increase

**16 in 1 multipurpose additive**

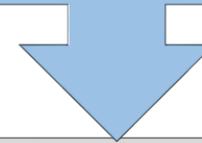




CoalMax is a state of the art multi purpose non-chemical bio coal liquid additive made from non-edible vegetable esters and is a unique coal additive that works to reduce coal emissions at source, reducing vanadium in coal and increasing gross calorific value of coal.



CoalMax is the first organic based still liquid slurry coal additive that is fully sustainable and biodegradable. Suitable for all types of coal and acts as a natural biodegradable agent of Molecule Spacing creating a micro explosion that breaks coal into finer particles before being burned which slows down coal consumption.



CoalMax is a 16 in 1 multipurpose very rare additive and we are one of the only companies worldwide that produce a bio-additive specifically made to increase the calorific value of coal and reduce the CO<sub>2</sub>, SO<sub>2</sub> and vanadium content in the coal.

# WHAT WILL COALMAX DO?

Increase GCV of coal by up to 55% or more

Less coal consumption

More electricity production at power plant

Increase volatile matter up to 60%

Reduce emissions by up to 90%

Reduce vanadium by up to 70%

Change molecular structure of coal

Help burn coal slower & hotter

Reduce evolution of black smoke

Reduce dust from power plant

Reduce sulphur by up to 30%

Reduce moisture by up to 70%

Reduce ash content in coal

Reduce fixed carbon by 20%

Reduce chlorine by 80%

Enhance power plant efficiency

100% non-hazardous

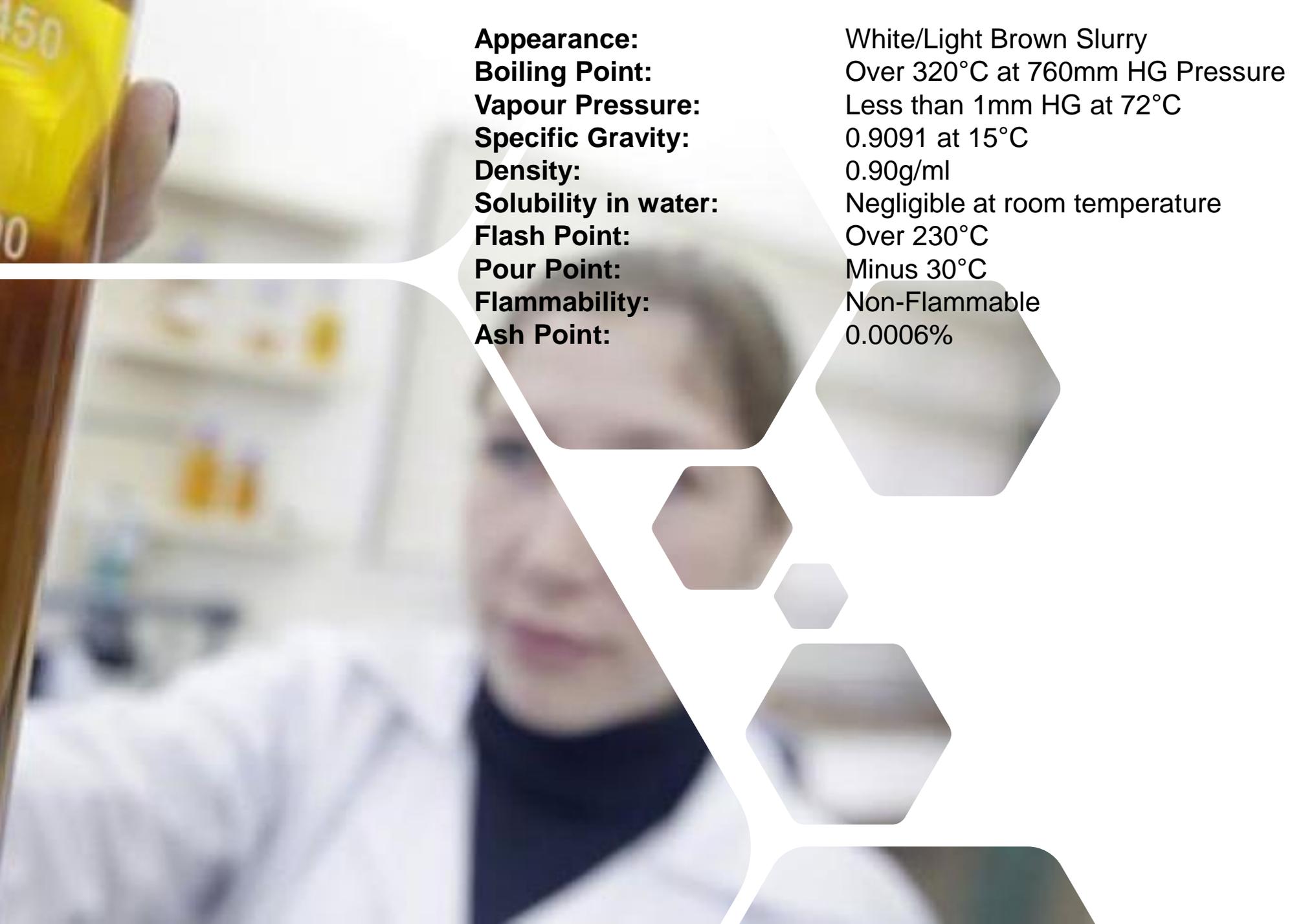
100% non-flammable

100% non-chemical

Made from vegetable extract

Fully sustainable and biodegradable

16 benefits per dose



**Appearance:**

**Boiling Point:**

**Vapour Pressure:**

**Specific Gravity:**

**Density:**

**Solubility in water:**

**Flash Point:**

**Pour Point:**

**Flammability:**

**Ash Point:**

White/Light Brown Slurry

Over 320°C at 760mm HG Pressure

Less than 1mm HG at 72°C

0.9091 at 15°C

0.90g/ml

Negligible at room temperature

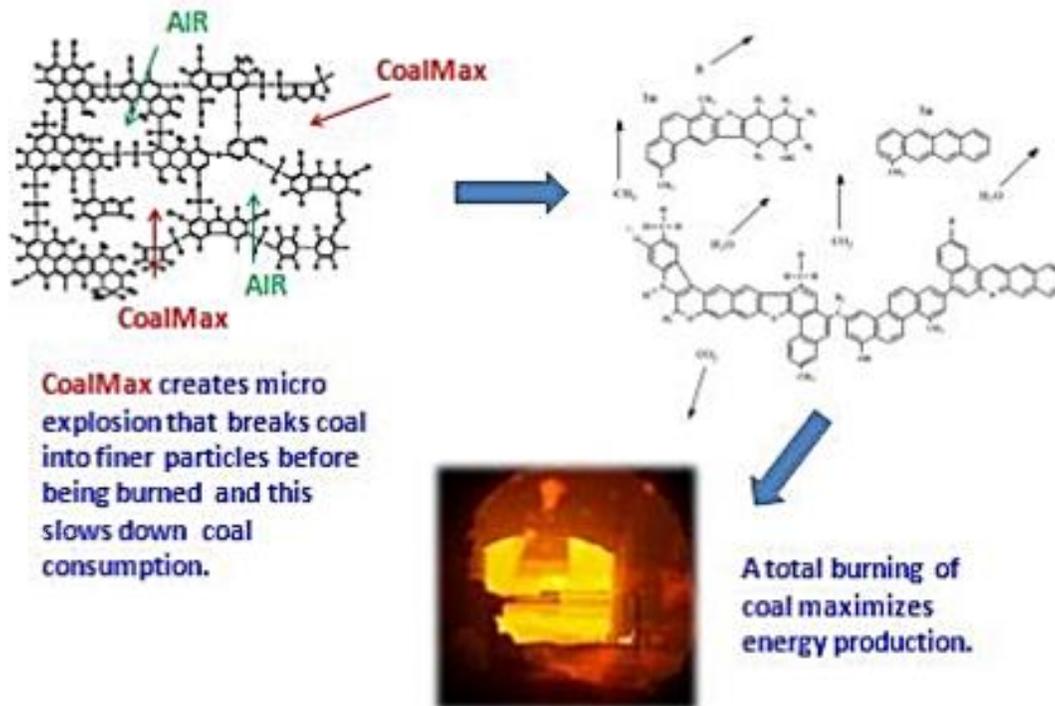
Over 230°C

Minus 30°C

Non-Flammable

0.0006%

How does CoalMax work?

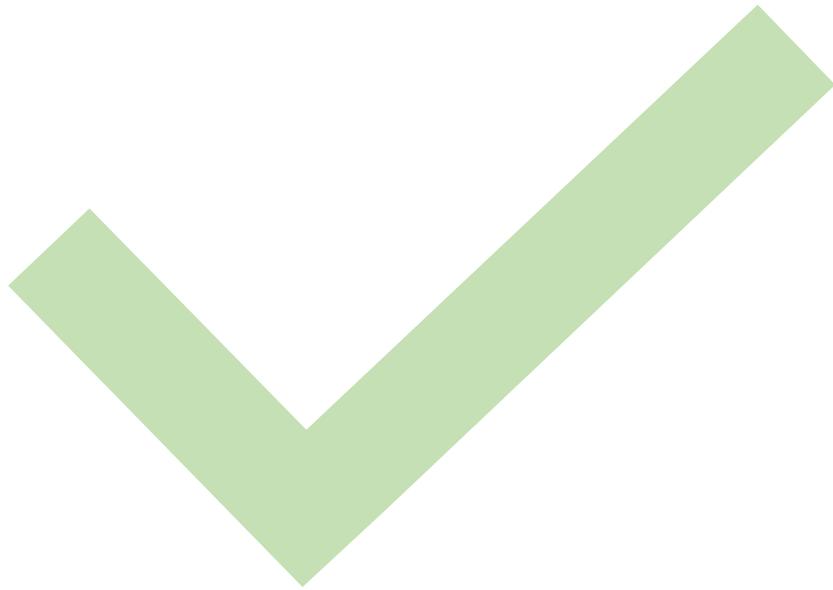


CoalMax acts as a natural biodegradable agent of Molecule Spacing and creates a micro explosion that breaks coal into finer particles before being burned and this slows down coal consumption.

In order to maintain a plant's electricity production, coal is constantly locally transported, exported or stored. The distance travelled and storage affects the calorific value of the coal. By using CoalMax, we are able to increase the calorific value of coal. Although the desired grade of coals are purchased as feedstock for the power plant, not all coal's calorific value are the same to maintain constant burning flame.

For example, CoalMax will help to bring up coal with low calorific value to minimum value of 5200 kcal/kg or more so that combustion is stabilized throughout the power generation. We can increase the calorific values by up to 55% or more. Regardless of the calorific value of coal, we can always increase it further thus giving more heat, slower burning process and more power production.

CoalMax has a hydrating agent to desiccate the coal which will in return cut down the condensation of water vapour produced during combustion process. This gives a better useful heating value for the plant.



With the use of CoalMax, we reduce the toxicity of coal and reduce the level of sulphur as well as vanadium in coal. CoalMax also minimizes the coal dust (which is readily inhaled into the lungs that causes lung cancer) because of the viscosity of the natural plant oil. It will trap the coal dust.

We have upgraded the formulation of CoalMax which makes it even more competitive and truly pioneering. Our CoalMax is now one of the most, if not the most cost-effective coal enhancer and emissions reducer in the world.

Metal particulates in CoalMax are very low:

Sodium < 1 ppm  
Cadium < 0.1ppm  
Mercury < 0.1ppm  
Chromium < 0.1ppm  
Lead < 0.1ppm

Total Sulphur 0.039% wt.

CoalMax will be able to reduce sulphur & vanadium levels and minimize the toxicity of coal both to human as well as the environment.



## ADVANCED MOLECULAR SPACING TECHNOLOGY

Our coal treatment technology uses CoalMax additive to alter the coal's combustion characteristics. This technology changes the way the coal burns. Our technology reduces the sulphur and Hg in the coal rather than allowing them to be emitted in power plant exhaust gases via the generating process. In addition, combustion efficiency improvements result in lower NOX and CO2 emissions per kilowatt hour generated.

Benefits of using engineered coal fuel technologies in recent studies conducted by EPRI (Electric Power Research Institute) and CURC (Coal Utilization Research Council) indicate that for each 1% increase in combustion efficiency there is a 2.5% reduction in CO2 emissions from power plants. By applying these techniques as a measuring yardstick, including sulphur reduction, vanadium reduction and improved volatile matter in the coal that CoalMax uniquely offers, emissions of mercury can be reduced from 15-90%; nitrogen oxides (NOX) can be reduced from 10-50%, and sulphur dioxide (SO2) can be reduced 10-80% thus reducing overall emissions by up to 90% or more at source.

When improvements in efficiency and reductions in emissions from engineered coal fuels technologies are combined with other clean coal technologies (combustion and post combustion), the environmental and cost benefits are manifold. Engineered coal fuels technologies represent an excellent opportunity to use coal – our most abundant/secure and affordable energy resource – in an environmentally sound manner. By applying these technologies along with combustion and post-combustion stage technologies our coal use will help to power us well into the future. This is where CoalMax comes into play.

### What is CoalMax?

CoalMax is made from vegetable esters and extract elements of triglycerides with no chemical ingredients. All natural, sustainable, biodegradable and environment friendly.

Non-hazardous.  
Non-volatile.  
Non-flammable.  
Non-chemical.  
Non-toxic

**Our technologies enable you to achieve more, using less.**



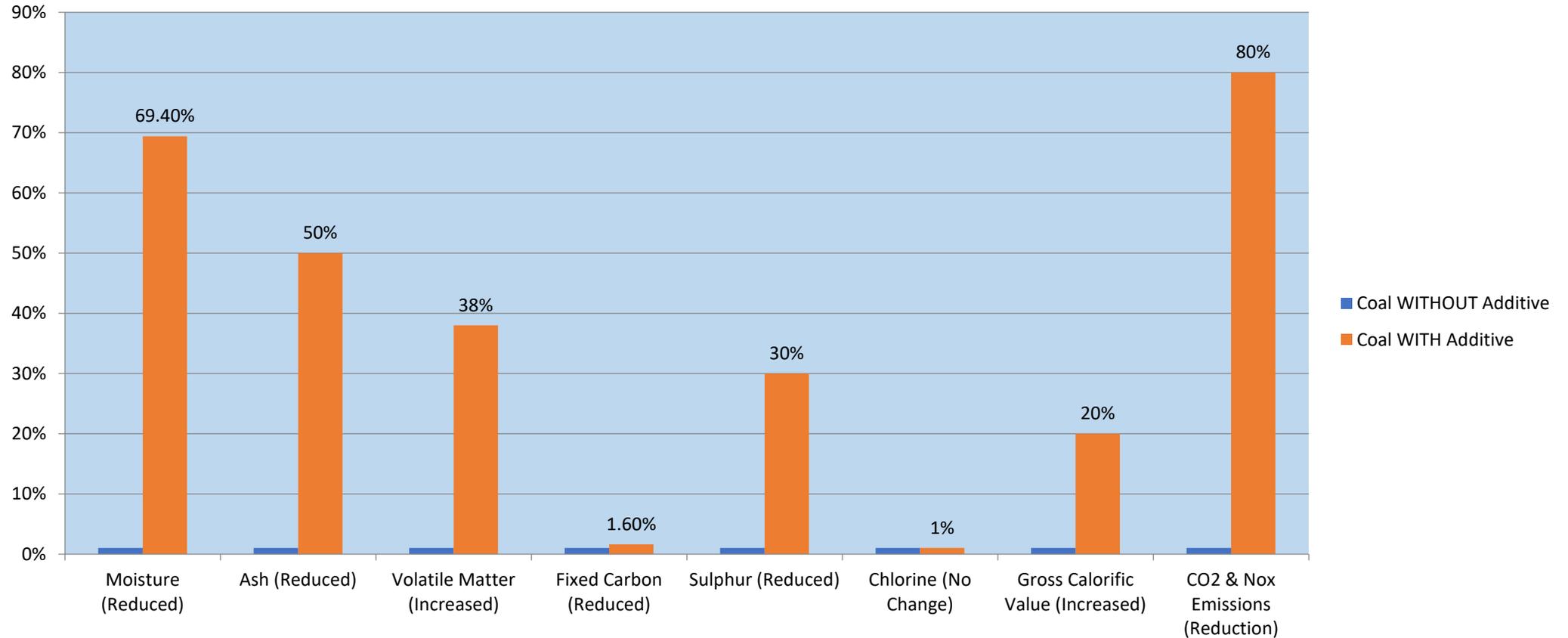
Our highly skilled technical team have developed our specialty products that subsequently have been added to the company's expanding product line.

- CoalMax is the most technologically advanced bio coal additive on the market today and is by far superior to anything close. We do not judge by quantity and numbers, we judge by quality and results.

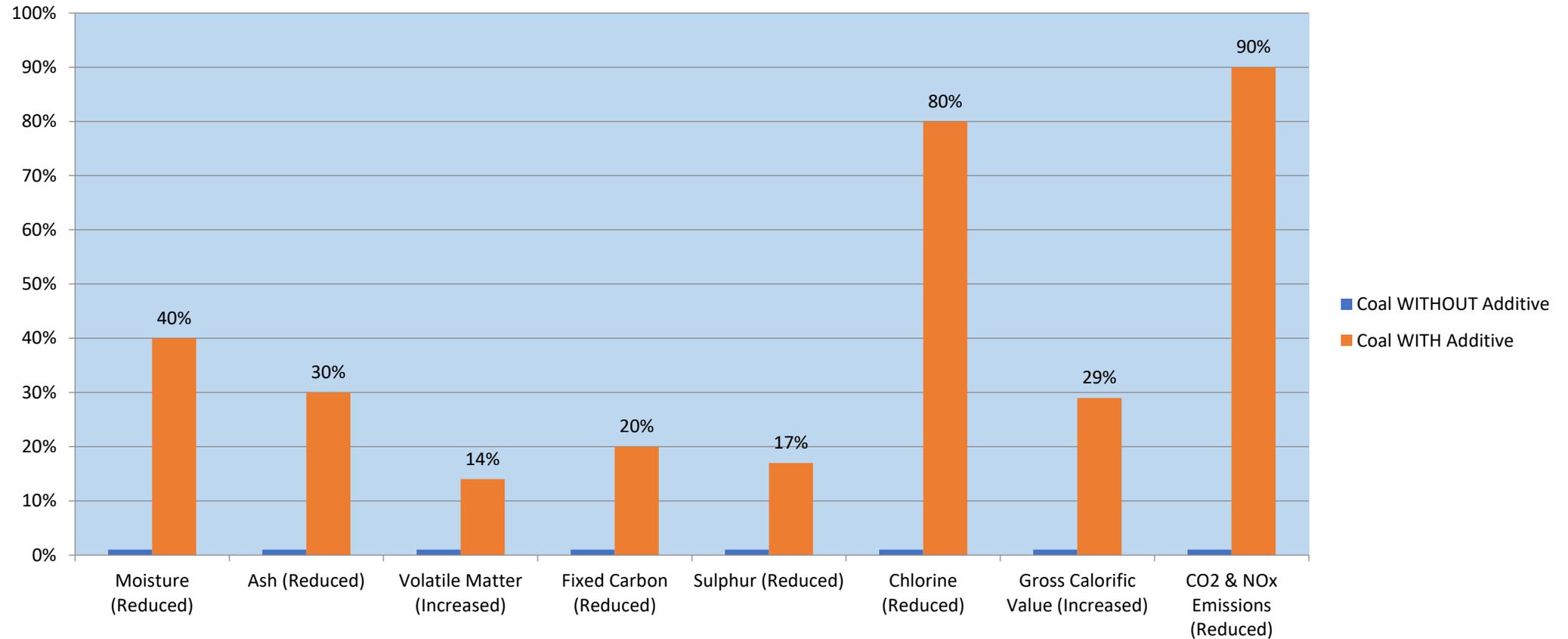
- We are one of the leading coal additive companies in terms of product superiority because our additive is such a versatile product that it can give fuel economy, cleaner emissions, smoother combustion, increased calorific value, more heat and slower burning process thus increased performance for power production.

- No other bio coal additive can give a double digit % savings and efficiency ratio, and emissions reductions all at the same time.

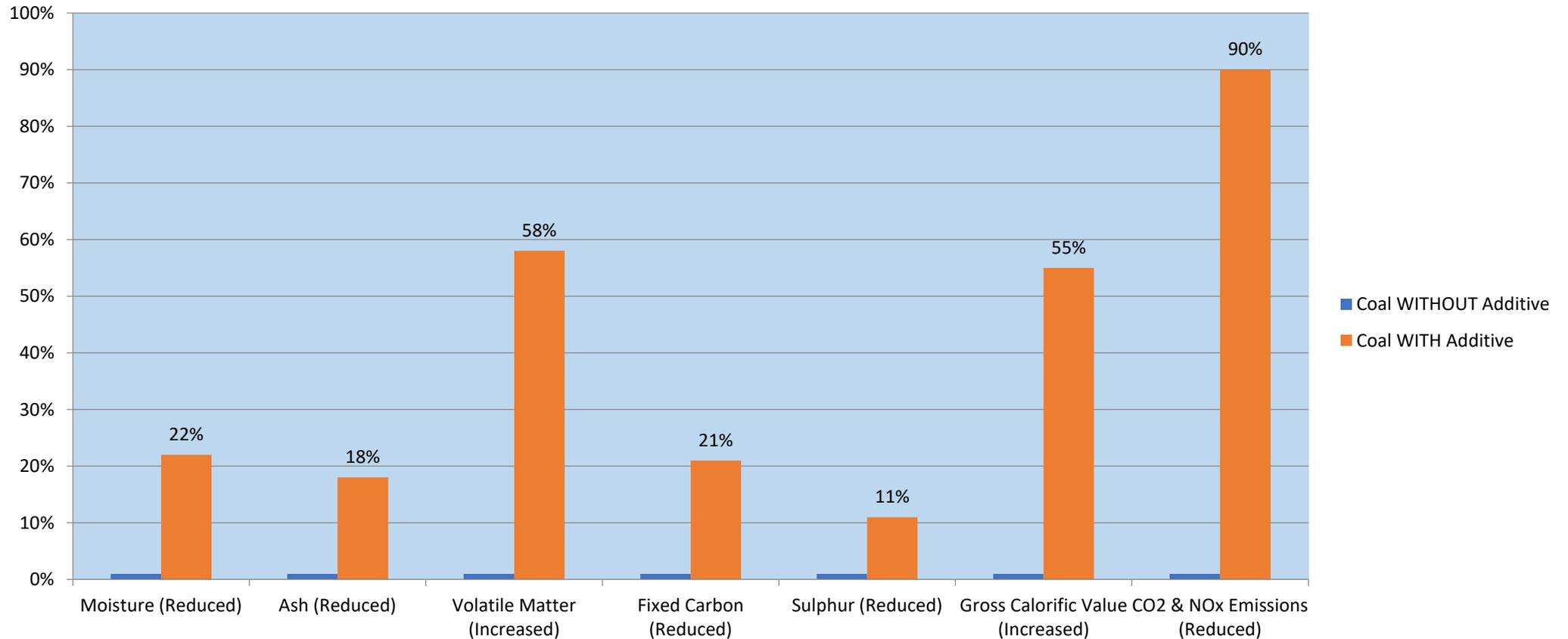
## Anthracite Coal (from USA) Improvements After Mixing CoalMax

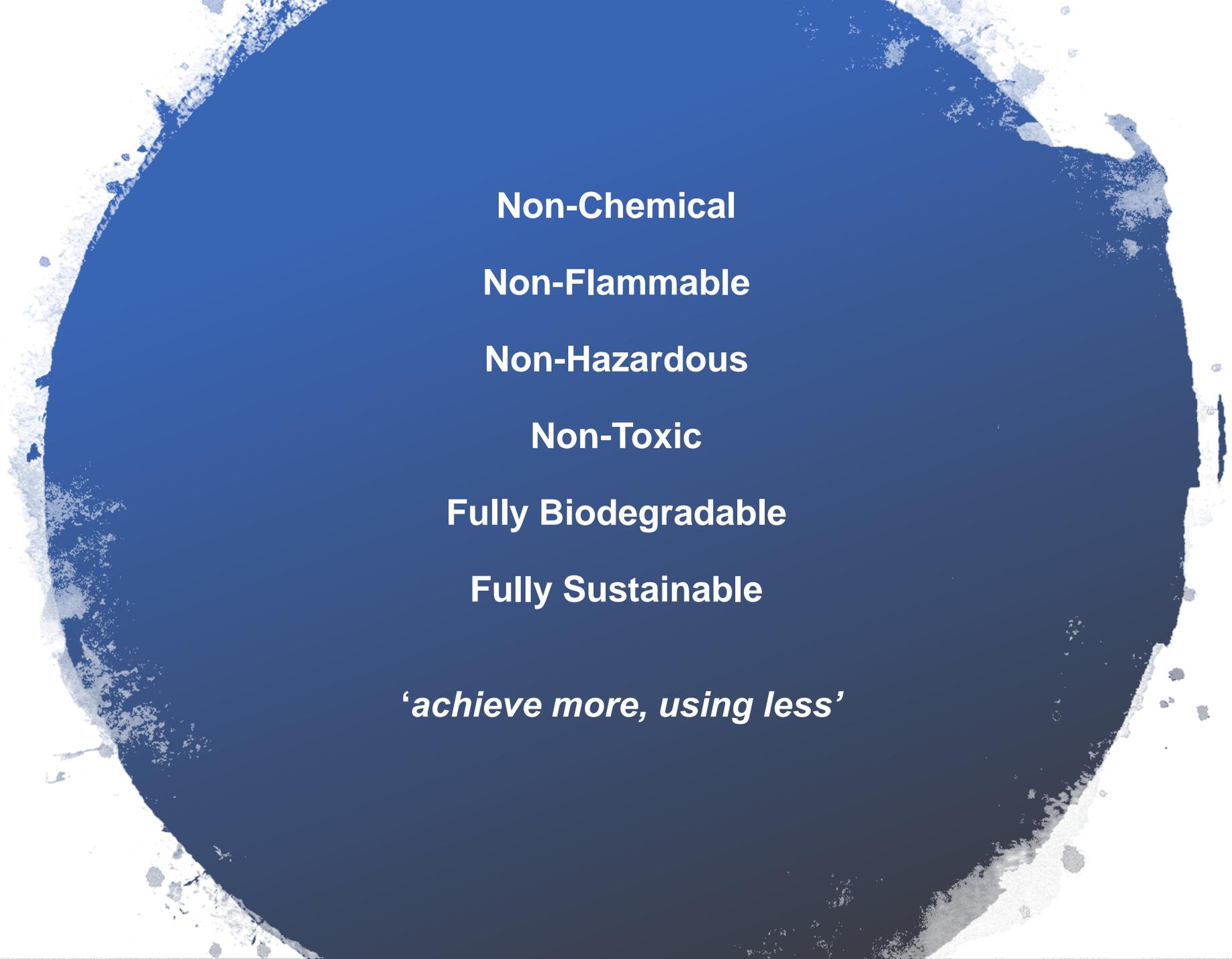


## Sub Bituminous Coal (from Indonesia) Improvements After Mixing CoalMax



## Lignite Coal (from Pakistan) Improvements After Mixing CoalMax





**Non-Chemical**

**Non-Flammable**

**Non-Hazardous**

**Non-Toxic**

**Fully Biodegradable**

**Fully Sustainable**

***‘achieve more, using less’***



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