

# Mineral Magic



Mineral Magic™ is Biogenic Amorphous Silica (BAS) and is both non-toxic and non-carcinogenic and a 100% natural mineral that has been over 125 million years in the making. Direct from Mineral Magics mine in Western Australia's Northwest it is simply produced by crushing and screening the raw, mined product which requires the absolute minimum carbon footprint as opposed to the manufactured products that attempt to achieve the same benefits. Whether it be for the hydrophobic sand plains or the heavy clay-based soil, our Lawn Conditioner can provide benefits to improve the soil structure and water habits to ensure an improve quality, with less negative impact on the environment at lower cost, for your turf.

## Mineral Magic - The Smart Soil Solution

Mineral Magic, a certified organic soil amendment made from amorphous silica. Mineral Magic is a long-lasting soil conditioner that optimises soil health and plant resilience. By improving aeration, moisture retention, and nutrient absorption, it helps maintain high-performance turf and vegetation in demanding environments making it ideal for turf, sports fields, horse racetracks, and golf greens.

### Key Benefits:

- ✓ **Enhanced Soil Structure:** Improves aeration, drainage, and root penetration while reducing compaction.
- ✓ **Improved Water Management:** Retains moisture, reducing irrigation needs and maintaining surface consistency.
- ✓ **Superior Nutrient Retention:** Boosts cation exchange capacity (CEC), making essential nutrients more available.
- ✓ **Stronger Root Development:** Encourages deeper, denser roots for resilience against wear and stress.
- ✓ **Drought and Stress Resistance:** Reduces transpiration loss and enhances water efficiency.
- ✓ **Disease and Pest Resistance:** Strengthens plant cell walls, reducing fungal and pest susceptibility.
- ✓ **Wear and Tear Durability:** Maintains playing surfaces under heavy use and harsh conditions.
- ✓ **pH Stabilisation:** Helps balance soil pH for optimal plant growth.
- ✓ **Eco-Friendly Solution:** Reduces reliance on fertilisers and pesticides, minimising runoff and environmental impact.
- ✓ **Dust Suppression:** Retains moisture and binds particles to improve air quality.



### Silica & Soil Health:

Amorphous silica contributes to soil and plant health by:

- Creating a physical barrier that limits pest movement.
- Strengthening plant structures to resist damage.
- Supporting beneficial microbial activity.
- Improving plant resilience against stress, nematodes, and environmental challenges.

*Silicon Disease Reduction in Various Turfgrass Species*

Species	Disease	Reduction
Zoysia	Leaf Blight	Yes
Creeping Bentgrass	Root Rot, Brown patch, Dollar Spot	Yes
KY Bluegrass	Powdery Mildew	Yes
Couch/Bermuda	Bipolaris Leaf Spot	Yes
Buffalo	Grey Leaf Spot	Yes
Perennial Ryegrass	Grey Leaf Spot	Yes

Ref: Datnoff, L.E. (2005). Silicon in the Life and Performance of Turfgrass. Applied Turfgrass Science, 2(1), pp. 1-6.

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## Ideal for:

- Sports ovals & high-use turf.
- Golf greens requiring durability and consistency.
- Horse racetracks needing surface stability and cushioning.
- General turf areas seeking improved moisture retention and nutrient efficiency.



Root Growth after 7 weeks - Mt Lawley Golf Course WA

## Product Specifications

Item	Quantity/Volume
pH (1:5 water)	8.5
Electrical Conductivity (EC) (1:5 water)	< 40*
Cation Exchange Capacity (CED; meg/100g)	> 30
Nitrogen	< 0.1% Total
Phosphorus	< 0.2% Total
Sulphur	< 0.1% KCl extractable
Plant Available Silicon (PAS)	0.1%**
Copper	0.2 mg/kg
Zinc	1.0 mg/kg
SiO <sub>2</sub>	86% Total
Al <sub>2</sub> O <sub>3</sub>	7.2% Total
CaO	1.3% Total
Fe <sub>2</sub> O <sub>3</sub>	0.8% Total
MgO	0.3% Total
LOI	4.7%
Organic Matter	0.22% w/w
Manganese	4.3 mg/kg*
Boron	7 mg/kg Total

\*EC after flushing. \*\*Measured by the calcium chloride extraction method (1:100 extraction ratio). \*DTPA Extractable. Typical analysis specified. Given the heterogeneity of the material the actual properties of the material may differ from those specified in this document. The information contained in this Product Specification Sheet is given in good faith and may not be interpreted as a binding specification or representation.

## Rate of Application

Situation	Rate	Application
Renovations	500kg - 1000kg per ha	Core turf. Mix Mineral Magic with compost. Water in with wetting agent.
Construction	500kg - 1000kg per ha	Add 10cm layer of soil conditioner over the top of Mineral Magic and mix thoroughly with rotary hoe.

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