

Gronamic®

ICL



Part organic. Part mineral.
The perfect balance for your turf.

Gronamic[®]

Organic, natural performance

Gronamic is a range of organo-mineral fertilisers from ICL. Each granule combines mineral and organic nutrient sources.

The granulation process produces consistent, uniform and dust-free products. This range allows you to incorporate all the benefits of organic sources of nutrition into your fertiliser programme without compromising on quality or reliability.



Part of
Turf
REWARDS

Benefit from better turf

In the range

Gronamic Golf
6-2-4

**New
product**

Gronamic Golf
High N 16-3-6 +2MgO +2CaO +0.5Fe

Gronamic Golf
High K 5-0-22 +2MgO +1.5CaO +0.5Fe

Gronamic Sport
High N 16-3-6 +2MgO +2CaO +0.5Fe

Gronamic Allround
10-4-5 +2MgO +0.5Fe

Key points

- Organic and mineral nutrient sources
- Range of nitrogen sources provide phased N release, allowing even growth
- Consistent granulation to ensure reliable performance
- Great longevity



Gronamic®

Phased nutrient release

Gronamic products contain multiple selected sources of nitrogen nutrition for phased nutrient release.



N sources

Ammonium > Urea > Complexed organic N

As the Gronamic granule disperses into the turf, the growing turf plant will be supplied N initially from ammonium, then from urea and finally from the mineralised organic nitrogen.

Sustained nitrogen uptake from a single product

Polyhalite inside



Each fertiliser* combines the proven mineral fertiliser polyhalite (supplying Ca, Mg, K, S) plus organic nutrients from plant and/or animal sources.

Carbon to nitrogen ratio – plant available

The C:N ratio in all Gronamic products allows mineralisation of organic nutrients with no lock-up or immobilisation.

Polyhalite (mineral) $K_2Ca_2Mg(SO_4)_4 \cdot 2(H_2O)$

K

14% K_2O as from potassium sulphate

Mg

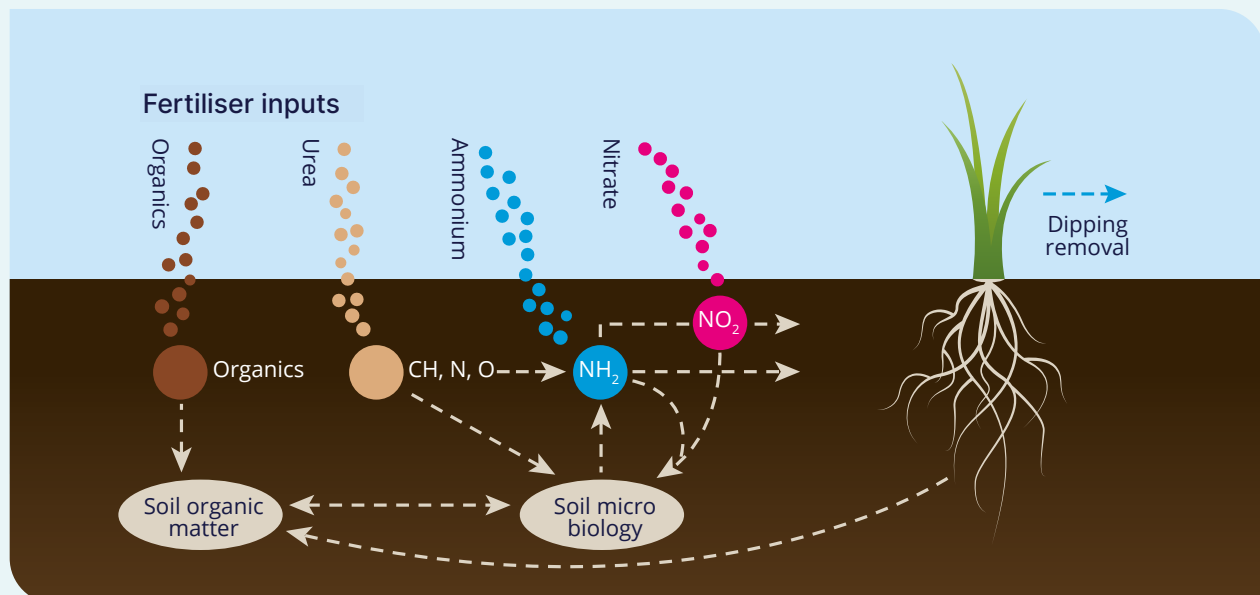
6% MgO as from magnesium sulphate (3.6% Mg)

Ca

17% CaO as from calcium sulphate (12% Ca)

*No polyhalite included in Allround

Nitrogen cycle



C:N ratio

The C:N ratio determines whether the organic nutrients can be easily converted to an available form for plant uptake.

Will mineralisation or immobilisation take place?

At $C:N < 20:1$ mineralisation will occur
At $C:N > 30:1$ immobilisation will occur

Gronamic[®] Golf

6-2-4

New
product

Organic based fertiliser with unique, proven and sustainable ingredients

6-2-4
(6-0.87-3.3)

Gronamic Golf 6-2-4 is designed to deliver a healthy natural turf response. It combines a unique blend of mineral and plant-based organic nutrition with a proven biostimulant. Formulated as a mini granule to be applied to the finest turf.

Key points

- Organo-mineral fertiliser
- The organic content is 100% plant based
- Contains SMX seaweed extract - a sustainably sourced seaweed concentrate
- Contains Struvite - recycled phosphate
- Contains Polyhalite - a natural mineral source of K, Ca and Mg
- Phased nitrogen release

Recommended period of use

(J) (F) (M) (A) (M) (J) (J) (A) (S) (O) (N) (D)

Application information

Application rate: 25 - 35 g/m²

Product characteristics

Formulation type:	Mini-granule
Technology:	Organo-mineral
Granule size	1 mm - 2.5 mm
Pack size:	20 kg
Pack coverage:	571 - 800 m ²
Longevity:	6 - 8 weeks
Typical turf response:	3 - 7 days depending on environmental factors
Granule dispersal:	Less than 4 days

Areas of use

- | | | |
|-------------------------------|-----|------------------------|
| ✓ Greens | Key | ✓ Ideal for purpose |
| ✓ Greens surrounds | | ✓ Suitable for purpose |
| ✓ Greens collars & approaches | | |
| ✓ Tees | | |
| ✓ Lawn tennis | | |
| ✓ Fairways | | |
| ✓ Stadia pitches | | |
| ✓ Sports pitches | | |
| ✓ Outfields | | |
| ✓ Lawns | | |

All ingredients unique to **AICL** in turf



Gronamic 6-2-4 contains unique ingredients

Polyhalite

Extensive trial work has confirmed that the principal nutrients of potash, magnesium and calcium in polyhalite are fully available to the plant, performing in trials with the same plant efficiency as standard individual sources of potassium and magnesium sulphate.

Polyhalite has these minimum contents of:

- Potassium 14% K_2O as from Potassium sulphate
- Magnesium 6% MgO as from Magnesium sulphate
- Calcium 17% CaO as from Calcium sulphate

Polyhalite is a low chloride fertiliser, and being a natural product with no chemical processing makes it suitable as an organic source of nutrients.

Pearl Struvite

Struvite is recycled, slow-release phosphorus, derived from the water treatment industry.

Sierrablen Plus with Pearl® Technology



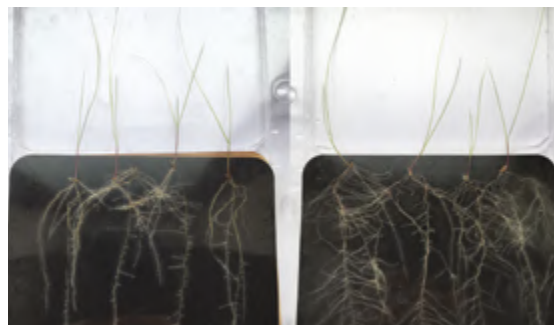
Other high performing fertiliser



Independent trial data has shown significantly increased rooting when Sierrablen Plus Pearl® struvite technology is used as a fertiliser during turf-laying. There was a 2.5 x increase in rooting when compared to another existing high-performing product.

SMX Seaweed

SMX is sustainably sourced concentrated seaweed. During trials, SMX significantly increased total root surface area of Perennial ryegrass.



Perennial Ryegrass seedlings grown with nutrient control (equivalent NPK).

Perennial Ryegrass seedlings grown with one application of **SMX** at label rate.

Gronamic[®] Golf High K

Low nitrogen levels for controlled response

5-0-22 +2MgO +1.5CaO +0.5Fe
(5-0-18.3 +1.2Mg +1Ca +Fe)

Gronamic Golf High K delivers sustained nutrition to the turf plant through the growing season and high K levels. The supply of all key macronutrients and iron allows for a healthy plant, great turf colour and resilience from wear.

The balance of mineral and organic components provides the benefits from both approaches of turf nutrition.

Key points

- Plant-based organic component
- Low nitrogen levels for more controlled response
- High potassium to support the plant in periods of stress
- Great granulation means low application rates are possible
- Combination of ammonium, urea and organic nitrogen sources
- Polyhalite mineral included to supply CaO, MgO & K for healthy growth
- Ideal for summer and early autumn applications

Recommended period of use

J F M A M J J A S O N D

Application information

Application rate: 30 - 40 g/m²



Product characteristics

Formulation type:	Mini-granule
Technology:	Organo-mineral
Granule size	1 mm - 2 mm
Pack size:	25 kg
Pack coverage:	625 - 833 m ²
Longevity:	6 - 8 weeks
Typical turf response:	3 - 7 days depending on environmental factors
Granule dispersal:	Less than 4 days

Areas of use

- ✓ Greens
- ✓ Greens surrounds
- ✓ Greens collars & approaches
- ✓ Lawn tennis
- ✓ Tees
- ✓ Fairways
- ✓ Stadia pitches
- ✓ Sports pitches
- ✓ Outfields
- ✓ Lawns

Key ✓ Ideal for purpose ✓ Suitable for purpose

Gronamic[®] Golf High N

High nitrogen levels for sustained growth

16-3-6 +2MgO +2CaO +0.5Fe
(16-1.3-5 +1.2Mg +1.4Ca +0.5Fe)

Gronamic Golf High N is designed to deliver sustained nutrition to the turf plant through the growing season. The supply of all key macronutrients and iron allows for a healthy plant, great turf colour and resilience from wear.

The balance of mineral and organic components provides the benefits from both approaches of turf nutrition.

Key points

- Plant-based organic component
- High nitrogen levels for sustained growth
- Great granulation means low application rates are possible
- Combination of ammonium, urea and organic nitrogen sources for consistent growth response
- Polyhalite mineral included to supply CaO, MgO & K for healthy growth
- Ideal for use in spring and summer

Recommended period of use

(J)(F)(M)(A)(M)(J)(J)(A)(S)(O)(N)(D)

Application information

Application rate: 30 g/m²



Product characteristics

Formulation type:	Mini-granule
Technology:	Organo-mineral
Granule size	1 mm - 2 mm
Pack size:	25 kg
Pack coverage:	833 m ²
Longevity:	6 - 8 weeks
Typical turf response:	3 - 7 days depending on environmental factors
Granule dispersal:	Less than 4 days

Areas of use

- ✓ Greens
- ✓ Greens surrounds
- ✓ Greens collars & approaches
- ✓ Lawn tennis
- ✓ Tees
- ✓ Fairways
- ✓ Stadia pitches
- ✓ Sports pitches
- ✓ Outfields
- ✓ Lawns

Key ✓ Ideal for purpose ✓ Suitable for purpose

Gronamic[®] Sport High N

High nitrogen levels for sustained growth

16-3-6 +2MgO +2CaO +0.5Fe
(16-1.3-5 +1.2Mg +1.4Ca +Fe)

Gronamic Sport High N delivers sustained nutrition to the turf plant through the growing season. The supply of all key macronutrients and iron allows for a healthy plant, great turf colour and resilience from wear.

The balance of mineral and organic components provides the benefits from both approaches of turf nutrition.

Key points

- Organic component supplies carbon to the soil
- High nitrogen levels for sustained growth
- Combination of ammonium, urea and organic nitrogen sources
- Polyhalite mineral included to supply CaO, MgO & K for healthy growth
- Ideal through main growth periods of the season

Recommended period of use

(J) (F) (M) (A) (M) (J) (J) (A) (S) (O) (N) (D)

Application information

Application rate: 30 - 40 g/m²



Product characteristics

Formulation type:	Standard granule
Technology:	Organo-mineral
Granule size	2 mm - 4 mm
Pack size:	25 kg
Pack coverage:	625 - 833 m ²
Longevity:	6 - 8 weeks
Typical turf response:	3 - 7 days depending on environmental factors
Granule dispersal:	Less than 4 days

Areas of use

- ✓ Tees
- ✓ Fairways
- ✓ Stadia pitches
- ✓ Sports pitches
- ✓ Outfields
- ✓ Racecourses
- ✓ Lawns

Key ✓ Ideal for purpose ✓ Suitable for purpose

Gronamic® Allround

Sustained nutrient release

10-4-5 +2MgO +0.5Fe
(10-1.7-4.1 +1.2Mg +Fe)

Gronamic Allround delivers sustained nutrition to the turf plant through the growing season. The supply of key macronutrients allows for a healthy plant, sustained turf colour and resilience from wear.

The balance of mineral and organic components provides the benefits from both approaches of turf nutrition.

Key points

- Supports plant growth through the growing season
- Combination of ammonium, urea and organic nitrogen sources
- Sustained nutrient release
- Organic component supplies carbon to the soil

Recommended period of use

J F M A M J J A S O N D

Application information

Application rate: 30 - 40 g/m²



Product characteristics

Formulation type:	Standard granule
Technology:	Organo-mineral
Granule size	2 mm - 4 mm
Pack size:	25 kg
Pack coverage:	625 - 833 m ²
Longevity:	6 - 8 weeks
Typical turf response:	3 - 7 days depending on environmental factors
Granule dispersal:	Less than 4 days

Areas of use

- ✓ Tees
- ✓ Fairways
- ✓ Stadia pitches
- ✓ Sports pitches
- ✓ Outfields
- ✓ Racecourses
- ✓ Lawns

Key ✓ Ideal for purpose ✓ Suitable for purpose

SR-2000 and Accupro 2000 spreader settings

Gronamic Golf 6-2-4

Rate	Cone Setting	Spread width	Single pass	Double pass
25 g/m ²	8	2.8 m	M	I ½
30 g/m ²	8	2.8 m	N ½	J ½
40 g/m ²	8	2.8 m	P ½	L


Gronamic Golf High K and High N

Rate	Cone Setting	Spread width	Single pass	Double pass
30 g/m ²	7	4.0 m	O	J ½
35 g/m ²	7	4.0 m	P ½	K ½
40 g/m ²	7	4.0 m	L	R

Gronamic Sport High N and Allround

Rate	Cone Setting	Spread width	Single pass	Double pass
30 g/m ²	6	4.0 m	V ½	O
35 g/m ²	6	4.0 m	n/a	P
40 g/m ²	6	4.0 m	n/a	Q

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