### Guides and Tips For Growing In Stone Wool

Full and thorough initial saturation is recommended for optimal performance of the GRO-blocks and is essential for successful cultivation. It is the basis for root development and growth of your crop.

#### 1. Wetting blocks by submersion

- Prepare a nutrient solution with a minimum EC of 1.5 mS/cm, pH adjusted to 5.5 6.5.
- Fill a reservoir with the nutrient solution to ensure the solution fully covers the blocks. Blocks should essential be "swimming" in solution.
- Place blocks into the reservoir and allow them to submerge in the solution. Approximate sinking times are listed in the chart.
- Keep the blocks submerged until the bubbling stops.
- Remove blocks from the solution and place them on the growing bench or gutter with the grooves pointing in the direction of the drain/slope. This enables excess nutrient solution to drain from the block on flat surface that do not have drainage grooves.



#### 2. Checking the water absorption in the blocks

- It is important to ensure full saturation of Grodan products to prevent dry areas that might affect root development. To properly assess saturation, we advise checking the wet weight of the blocks.
- You must weigh several blocks in different parts of your bench and facility to ensure there are no outliers.
- Compare the wet weight after saturation to the chart below, noting that these are guidelines.
- Use the recommended target weight per product as indicated in the table.

Description	Dimensions (WxHxL) in cm	WC advice in grams (minimum)
Grodan GRO-BLOCK Improved Mini-Block 1.5"	4*4*4	57
Grodan GRO-BLOCK Improved Mini-Block 2"	5*5*5	110
Grodan GRO-BLOCK Improved GR4 Small 3"	7.5*7.5*6.5	275
Grodan GRO-BLOCK Improved GR5.6 Large 3"	7.5*7.5*10	500
Grodan GRO-BLOCK Improved GR6.5 Small 4"	10*10*6.5	550
Grodan GRO-BLOCK Improved GR7.5 Medium 4"	10*10*7.5	600
Grodan GRO-BLOCK Improved GR10 Large 4"	10*10*10	800
Grodan GRO-BLOCK Improved GR22.5 Jumbo	15*15*10	1800
Grodan GRO-BLOCK Improved GR32 Hugo	15*15*14.2	2650
Grodan GRO-BLOCK Improved GR40 Uni-Block	20*20*10	3200
Grodan GRO_BLOCK Improved Big Mama	20.3 x 20.3 x 20.3	6400

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### **GRODAN IMPROVED GRO-SLAB AND UNI-SLAB**

Grodan Improved Gro-Slabs and Uni-Slabs offer a wide control range to steer your crop using precision irrigation strategies. Featuring the Advanced Hydrophilic Binder and Wetting Agent, Gro-Slabs offer more uniform WC and EC distribution throughout each slab. Fast rooting and vigorous growth throughout the entire growing cycle, improves cannabis plant health, increases crop resilience, and delivers higher yields. The improved slab density and physical properties guarantee rapid re-saturation within a wide water content steering range.

Grodan Improved Gro-Slabs are the ideal solution for growers seeking a reliable substrate that facilitates easy irrigation and leaves nothing to chance throughout the cultivation cycle.

## **Product Features**

- Single-plant and multi-plant slab options
- Vertical fiber orientation
- Inert hydrophilic binder fiber technology
- High re-saturation capacity, even after large dry-backs
- Uniform water distribution throughout the Grodan Improved Uni-Slabs

# Application

Grodan Improved Gro-Slabs and Uni-Slabs are extremely versatile and lend themselves perfectly to the cultivation of cannabis. Blooming plants will show fast growth, uniform stem development, and inflorescence early setting.



### **GRODAN IMPROVED GRO-SLAB AND UNI-SLAB**

## Key benefits



#### **Retains sufficient water**

The Advanced Hydrophilic Binder and Wetting Agent in Grodan Improved Gro-Slabs results in more uniform water distribution throughout the entire slab. As the slab tends to retains sufficient moisture, the risk of plants drying out is minimized. Gro-Slabs' improved capillary action also ensures moisture is retained more evenly throughout the slab.



#### **Easy irrigation**

The properties of Grodan Improved Gro-Slabs enable a multi-faceted irrigation strategy by allowing growers to vary the volumetric water content within a safe range of 45% and 75% (day level). If insufficient water has been supplied, the slab can be re-saturated quickly at any moment. And if too much water has been given, the slab's properties will ensure that excess water is drained away efficiently to prevent the WC from rising too high.

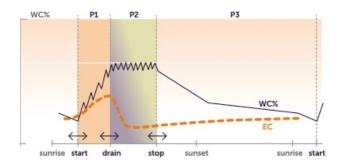


#### Fast, uniform crop development

The vertical, fiber structure of Grodan Improved Gro-Slabs enables roots to penetrate the slab easily, resulting in fast root development and lower energetic expenditure to initiate rooting. Homogenous development in the root zone guarantees vigorous and uniform crop growth resulting in stronger, healthier plants. In addition, the firmness of the slab structure guarantees physical plant stability right up until the end of the cultivation cycle, even with large and tall plants.

### **GRODAN IMPROVED GRO-SLAB AND UNI-SLAB**

## Key benefits





#### **Excellent Steerability**

The ability of Grodan Improved to distribute water and fertilizer evenly throughout the slab volume creates optimal steering capabilities. Growers have more control of the plant's balance throughout the crop cycle, facilitating crop steering with precise adjustments of the WC and EC in the root zone.

#### Sustainable water and nutrient use

Stone wool fibers do not bind nutrients and do not require flushing or buffering at the start of the cultivation cycle. An initial targeted application of recyclable water and nutrients enables sustainable water and fertilizer use. Together with other management strategies, including Grodan sensors and e-Gro software tools, Grodan Improved Gro-Slabs facilitate optimum crop steering for healthier plants and greater yields.