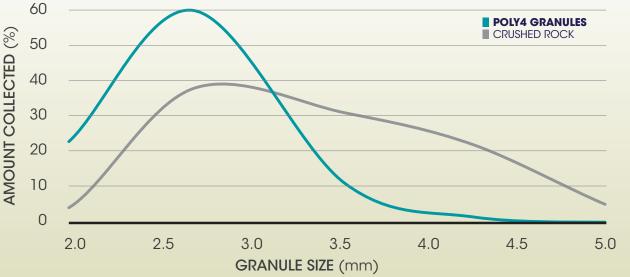
#### **PARTICLE SIZE**

The chip size of crushed rock varies between 2mm to 5mm, which is a wider grade specification than POLY4 granules.

A tighter grade pattern production of POLY4 granules allows to manufacture them within 2mm to 4mm in diameter.

This consistency in particle size is vital for optimal spreading and preventing segregation in bags.

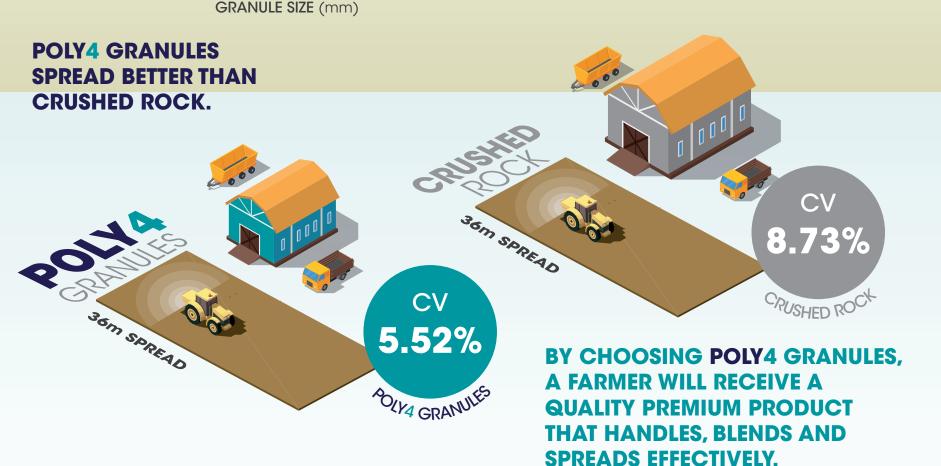


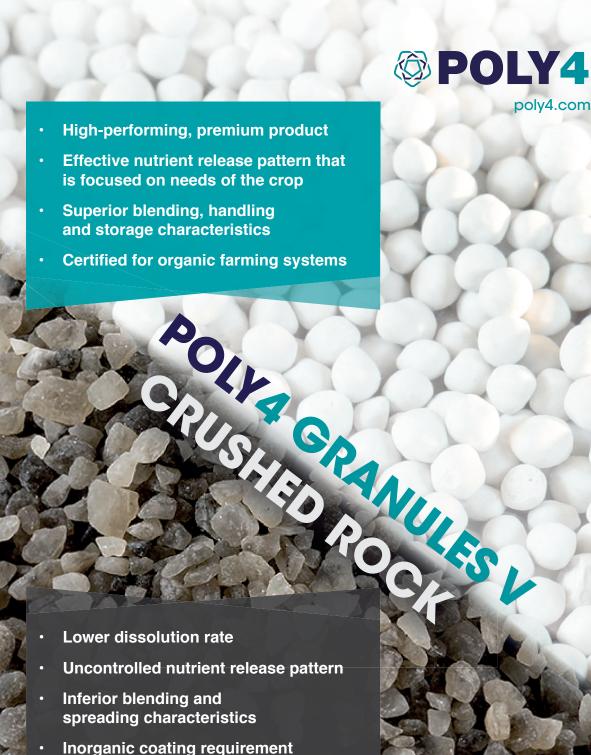
POLY4 GRANULES WILL ALWAYS MEET CUSTOMER SPECIFICATIONS.

## **SPREADING**

Uniformity of application is expressed as the coefficient of variation (CV). A CV of more than 20% generates stripes in the crop. Subsequently, uneven spreading increases the cost of crop production due to yield penalties and required corrective actions.

A lower CV means a more even distribution of fertilizer. Test results with 3mm POLY4 granules showed a CV of 5.52%. Similar testing of crushed rock chips measured a CV of 8.73%.



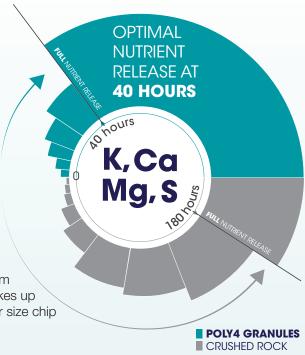


for dust control

#### **NUTRIENT RELEASE**

**COMPARED TO** CRUSHED ROCK. **POLY4 GRANULES MAKE NUTRIENTS AVAILABLE TO** PLANTS QUICKER.

The percentage of nutrient recovery is higher with the use of POLY4 granules. Laboratory testing indicates that nutrients are released from the POLY4 granules in 40 hours, whereas it takes up to 180 hours to recover nutrients from a similar size chip of crushed rock.



#### **DISPERSAL**

CT scans of POLY4 granule show that it is porous. Water can interact with additional surface space and disperse quicker. The structure of POLY4 granules allows water to easily access nutrients and deliver them to plants more effectively.

A chip of crushed rock is a solid mass. This means that water cannot penetrate it, and so the nutrient release is reduced.



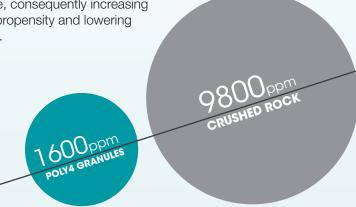
THE NUTRIENT **DISPERSAL CHARACTERISTICS OF POLY4 GRANULES ARE SUPERIOR TO GRADED CRUSHED** ROCK.



#### **HANDLING AND STORING**

Coated chips of crushed rock generate dust, which can be a respiratory hazard and increases the product's waste

Products that generate dust make fertilizer-handling difficult and attract moisture, consequently increasing caking propensity and lowering shelf life.



When a fertilizer starts absorbing moisture, it causes caking which leads to difficulties in its handling and spreading. Uncoated POLY4 granules attract less moisture compared

# to coated chips of crushed

## **MOVEMENT IN THE SOIL**

**POLY4 GRANULES HAVE** 

BY 83%COMPARED

TO CRUSHED ROCK.

A LOWER DUST TENDENCY

with nutrient-rich soil. With four of the six macro nutrients: potassium (K), sulphur (S), magnesium (Mg) and calcium (Ca), POLY4 granules deliver higher

POLY4

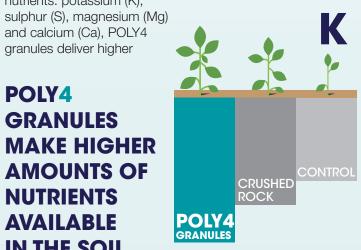
**GRANULES** 

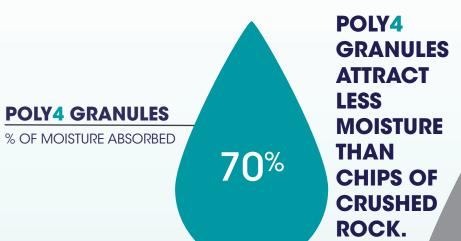
**NUTRIENTS** 

**AVAILABLE** 

IN THE SOIL.

Growing healthy plants begins outcomes in soil compared to chips of crushed rock applied at the same rate.



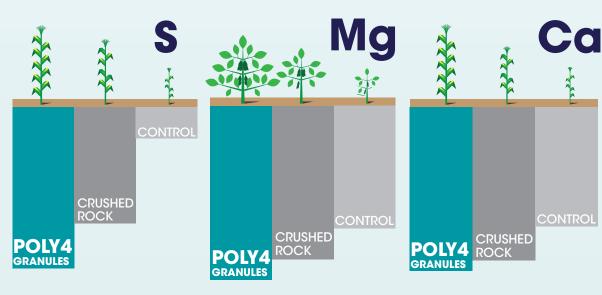


82%

% OF MOISTURE ABSORBED

**CRUSHED ROCK** 

**POLY4 HAS A SUFFICIENT** CRUSH STRENGTH OF **6.5 kgf THROUGHOUT** THE MANUFACTURING. **HANDLING AND** LOADING PROCESS.



# **PRODUCTION**

We granulate polyhalite using a patented process to produce POLY4. The binder eliminates the need for coating, as it holds the granule together lowering dust generation.

Chips of crushed rock are coated in oil. This affects its organic registration in some countries. The oil also adds technical challenges for blending or complex compound creation.