

# Silicon Dioxide



Silicon Dioxide is a multifunctional excipient that makes the manufacturing process easier. As an inert ingredient, Silicon Dioxide does not interact with other ingredients in your formulation or substances in the human body, making both manufacturing and digestion easier.

Silicon Dioxide has a high porosity, which allows it to absorb up to 300 g of fluid per 100 g; this means that liquid ingredients can turn in to free-flowing powders with ease. It also acts as a glidant, meaning that the product flows through machinery and does not stick to the equipment. Using Silicon Dioxide will also increase the stability of moisture-sensitive APIs; it can reduce trace quantities of moisture, which can cause degradation to your machinery, and its unique moisture absorption encourages quick tableting due to its resistance to capping and sticking.

Silicon Dioxide is one of our most popular excipients due to its effectiveness and making the manufacturing process more efficient.

## Main Benefits of Silicon Dioxide

- **High Absorbency** - Due to its ability to absorb moisture, Silicon Dioxide allows you to introduce liquid ingredients to your mix.
- **Excellent Glidant** - Silicon Dioxide is mainly used as a glidant, a substance used in a formula to improve flow qualities.
- **Prevents Product and Machine Degradation** - By reducing trace amounts of moisture, Silicon Dioxide can extend the life of your product and your machinery.
- **Kosher and Halal** - LFA's Silicon Dioxide is certified kosher and halal. Silicon Dioxide is also GRAS (Generally Recognized As Safe) by the FDA.

## Specifications

|                   |   |
|-------------------|---|
| CAS number        | 7631-86-9   |
| Molecular formula | SiO <sub>2</sub>  |
| Appearance        | White powder  |
| Physical state    | Solid   |
| Storage           | Store at room temperature   |
| Melting point     | 1,713 °C  |
| Density           | 2.648 (α-quartz) g/cm <sup>3</sup><br>2.196 (amorphous) g/cm <sup>3</sup> |
| Bulk density      | 0.05 g/cm <sup>3</sup>  |
| Molecular weight  | 60.08 g/mol   |