

STATE OF THE MARKET

VRX	SUV	DRX	ASQ	PEC
\$146.3m	\$93.7m	\$59.2m	\$24.4m	\$38.0m

ASX Market Capitalisations as at 07.04.2021 09:30am WST

DEFINING SILICA SAND, AND HOW IT DIFFERS FROM 'REGULAR' SAND

8 APRIL 2021

Of all the questions asked about silica sand, a couple of the most common are these:

1. **What exactly is silica sand?**
and,
2. **What is the difference between it and 'regular' sand?**

What is Silica (or White) Sand?

Silica sand is also known as quartz sand or white sand, and sometimes it is referred to as industrial sand.

It is made up of two main elements – silica and oxygen. **Specifically, silica sand is made up of silicon dioxide (SiO₂).**

The most common form of SiO₂ is quartz, a chemically inert and relatively hard mineral.

On the Mohs Hardness Scale (which measures a mineral's resistance to scratching) SiO₂ grades at a 7 out of 10. This makes it ideal for use as filtration media, such as that used in a variety of industrial water and waste water systems. At this grade, it can also be used as an abrasive blasting sand for the economical sandblasting of ships, bridges, structural steel, concrete, castings, storage tanks and the like.

Although quartz is often white or colourless, it can often present in a range of shades. The colour of each sand deposit depends largely on the variety of minerals and rock detritus that makes up that particular resource.

In order to be considered a silica sand the material must contain at least 95% SiO₂, and less than 0.6% iron oxide.

If the sand does not meet these two specific criteria, it won't qualify as silica sand, but may qualify as what's often called 'regular' sand.

What is 'Regular' (or Brown) Sand?

Regular sand, is also known as feldspathic sand or brown sand, and sometimes it is referred to as construction sand.

It will always contain some silica, but only in amounts less than 95%.

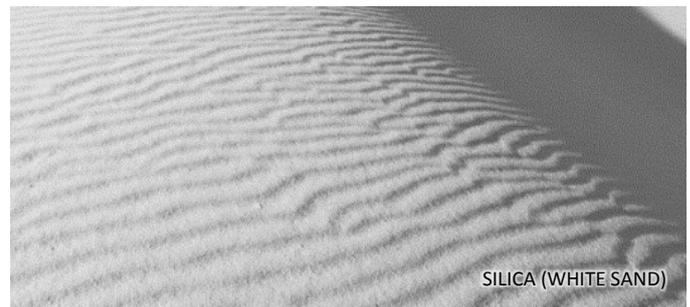
Typically, brown sand is used for concrete applications (for instance in premix blends for concrete including fast-set mixes, embedding pipes and other such general-purpose building sand uses). **It can contain up to 80% SiO₂**, along with varying amounts of iron, carbonate, potassium, and other trace elements or minerals.

These 'impurities' make regular sand more chemically reactive, and as such are often darker in colour when compared to silica sand. The colour for regular sands (or non-silica sands) can be various shades of white, pink, green and/or black – depending on the geological makeup and geographic location of the particular sand deposit.

What about Allup's Silica Search?

We are looking only for the highest purity silica sand deposits – those well over/in excess of the 95% SiO₂ grade.

Initial indications have been encouraging, and we are hopeful that our future explorations and investigations will provide the results we want! We will continue to report our progress as results unfold so that you remain fully informed.



SILICA (WHITE SAND)



REGULAR (BROWN SAND)