

QZS 700 SILICA SAND

DESCRIPTION

GENERAL: Silicon sand's main ingredient is silicon in the form of silicon dioxide (SiO_2 - silica). This corresponds to a group of minerals that are exclusively made of oxygen and silicon, the two ingredients that are in great abundance in the earth's crust. Although its chemical formula is quite simple, SiO_2 appears with different shapes and crystal structures. The most common form of silica crystal is Quartz, hence the name quartz sand.

Silica sand by THRAKON: QZS 700 is a silica sand that has undergone industrial process, cleaning and drying and is graded in different granulometries. The sand comes from rivers and contains no salts or foreign bodies. It is high in silica (SiO_2) that gives the product increased hardness: 6 - 7 on the Mosh scale. Sand grain has an almost spherical shape that gives the product perfect low properties, and binds it with the connecting materials (cement, lime hydrate).

FIELDS OF APPLICATION

The product is used in building and many other works such as:

- Cement floors (slabs, pipes etc.)
- Industrial floors
- Cement screed production
- Laying and joining ceramic setts
- Drainage works
- Potable and non-potable filters
- Golf courts

- Athletic constructions, tartan covers, sandpits etc.
- Horse tracks
- Gardening

The method of application, the consumption and selection of the appropriate granulometry (or even the combination of more than one granulometries), varies depending on the case.

ADVANTAGES - FEATURES

- Increased hardness, 6 - 7 on Mosh scale
Spherical grains that give perfect workability and ideal finish to mortars
- Provides solid density and high bending tolerance
- Provides high friction tolerance
- It is chemically inactive and does not affect the properties of the binder
- Not affected by corrosion or air pollution
- Protects from weather conditions
- Smaller water absorption compared to limestone aggregates
- Undergone cleaning and sieving

APPLICATION

A mixture of various grain sizes reaching up to 3500µm is used in mortars depending on the application thickness. For example, in common building mortars such as coatings, adhesives and floors, we use the following mixtures of silica sand:

Coatings:

- Rough cast: mixture up to 3500µm (THRAKON types 1-2-3-4-5)
- Base coat: mixture up to 2500µm (THRAKON types 1-2-3-4)
- Final or decorative coat: depending on application coat up to 500 (THRAKON type 1), up to 700 (THRAKON types 1-2), up to 1400 (THRAKON types 1-2-3)

Tile adhesives:

- For application thickness ≤1 cm Mixture of up to 500 µm (THRAKON types)
- For application thickness ≤1-1.5 cm mixture up to 700µm(THRAKON types 1-2).

Floors:

- Cement screeds: mixture up to 3500µm (THRAKON types 1-2-3-4-5)
- Floor hardeners: mixture up to 1400 or 2500µm (THRAKON types 1-2-3-4)

The final mixture to be used must have the optimum grain distribution, in order to achieve maximum resistance, increase tightness and prevent cracks.

PACKAGING - STORAGE

The product comes in:

- plastic open-nozzle bags of 25 Kg that are staple-closed
- big-bags of 1000 - 1500 Kg

stored indoors in closed bags for an unlimited period. Sun exposure of the packages must be avoided because the plastic bags will be destroyed.

PRECAUTIONS

There are no risks if the product is used normally and no particular protection measures must be taken. The product is neither flammable nor toxic.

For more information please refer to the latest Safety Sheet for the Product .

The technical information and instructions contained in the present brochure and referring to the application and end use of Thrakon products are based on the up to now know-how and experience of the Company with regards to the products and are provided in good faith as long as such products are stored, used and applied as per Thrakon recommendations. Due to the inability, on our part, to directly inspect the conditions prevailing at the worksite as well as the application procedures of the product, the Company does not provide any guarantee with regards to the adequacy of its products for specific purpose while the Company shall not bear any legal responsibility based on the information stated in the present brochure or any other written, oral, or otherwise provided recommendations and instructions. The users of the products are advised to perform a limited surface testing of the products adequacy for the eventual application and use intentions. Thrakon reserves the right to modify the features of its products without prior notification. All orders shall be approved only following acceptance of the above and under the eventual Commercial Policy terms of the Company. The issuance of the present brochure voids any prior version.

PRODUCT ID

Form	Dry granular material
Color	Grey/yellow
Basic characteristics	Quartz/Felspars
Specific gravity	1,3 - 1,5 gr/cm ³
Flammability	No
Toxicity	No

CHEMICAL ANALYSIS

SiO ₂	80.89%
Al ₂ O ₃	8.87%
Fe ₂ O ₃	1.76%
CaO	1.04%
MgO	0.39%
K ₂ O	3.13%
Na ₂ O	2.01%
TiO ₂	0.27%
SO ₃	0.00%
LOI	1.10%

SUMMARY GRAIN FEATURES

QZS 700 / No 1	200 – 500 µm
QZS 700 / No 2	500 – 700 µm
QZS 700 / No 3	700 – 1400 µm
QZS 700 / No 4	1400 – 2500 µm
QZS 700 / No 5	2500 – 3500 µm

SIEVE(µm)	QZS 700 No1	QZS 700 No2	QZS 700 No3	QZS 700 No4	QZS 700 No5
125	0.2-0.5				
160	5-9				
200	5-9				
250	18-23				
315	47-53	0.1-0.3			
400	84-88	2.5-3.5			
500	98-100	38-42	0.3-0.9		
600		87-92	8-12	0.1-0.3	
800		98-100	64-75	0.4-0.6	
1000			95-100	8.1-12	
1250				51-58	
1600				98-100	35-38
2000					35-36
3150					93-98
4000					95-100

Note: The measurements were taken in laboratory environment under a temperature of +23°C, Relative humidity 50 % and without ventilation. It is possible for them to vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation, absorbability of the substrate.

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