Technical Data Sheet
Quartz

Document Number: TRD.SIL.10.PA.2	**Product Name:** Industrial Quartz
Revision: 3.1	**Material Type:** Crystalline Silicon Dioxide (SiO_2)
Effective Date: December 17, 2024	**Classification:** Engineered Mineral

1. Product Overview

AXION Quartz is a natural mineral derived from high-quality quartz rock extracted from quarries in Türkiye. The material is produced through drilling, blasting, crushing, washing, screening, optical sorting, drying and grinding processes.

The product offers high purity, high whiteness and high brightness suitable for industrial applications.

2. Chemical Composition

IUPAC Name	Formula	Cas-No.	Min. (%)	Max. (%)
Silicon Dioxide	SiO2	7631-86-9	98.93	-
Iron (III) Oxide	Fe2O3	1309-37-1	-	0.42
Aluminium Oxide	Al2O3	1344-28-1	-	0.5
Titanium Dioxide	TiO2	13463-67-7	-	0.02
Calcium Oxide	CaO	1305-78-8	-	0.15
Magnesium Oxide	MgO	1309-48-4	-	0.03
Sodium Oxide	Na2O	1313-59-3	-	0.08
Potassium Oxide	K2O	12136-45-7	-	0.07
Loss of Ignition	L.O.I	-	-	0.150

3. Physical Properties

3.1. Particle Size Distribution

Particle Size Distribution (weight %)				
Size (µm)	D10	D50	D90	D97
Min.	1	3	8	13
Max.	3.5	6	14	20

3.2. Color

Color Measurement (X-Rite CI7500)			
	L	A	B
Min.	90.5	-	-
Max.	-	1	7

3.3. Humidity

Humidity	
	Aquaboy
Min.	-
Max.	60

3.4. Appearance

The advanced optic sorting process yields a product with superior whiteness and brightness, free from discoloration and foreign particulate matter.

4. Typical Applications

- Paint
- Advanced ceramic/porcelain formulations
- High-performance engineered stone and composites
- Specialty coatings and paints
- Filler for epoxy and polymer systems
- Filtration media

5. Packaging & Handling

Standard packaging is 1-ton or 1250KG bulk bags. Store in a dry, cool environment. Standard industrial safety precautions for handling fine mineral powders should be observed, including the use of appropriate personal protective equipment (PPE) such as dust masks and eye protection.