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**High purity sand applied inside quartz crucible for photovoltaic
monocrystalline silicon growth**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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High-purity inner layer sand for quartz crucible for photovoltaic single crystal silicon growth

1 Scope

This document specifies the requirements, inspection rules and marking, packaging, transportation and storage of high-purity inner sand for quartz crucibles used in photovoltaic single crystal silicon growth.

The corresponding test methods are described.

This document applies to the production of high-purity quartz sand (hereinafter referred to as "quartz sand") used as the inner layer of quartz crucibles for photovoltaic single crystal silicon growth.

Inspection, delivery and acceptance, including natural quartz produced by processing, purification and other production processes using natural quartz ore or crystal as raw materials Sand, and synthetic quartz sand prepared by physical and chemical methods using high-purity silicon-containing substances as raw materials.

2 Normative references

GB/T 191

GB/T 3284

GB/T 19077

GB/T 38879

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4.1 Appearance

The quartz sand should contain no particles that are visible to the naked eye and are different from the matrix.

4.2 Granularity

The particle size of quartz sand is determined by the supplier and the buyer.

4.3 Particle shape

Among the quartz sand particles with Feret diameter greater than 50 μm , the particles with a ratio of the maximum Feret diameter to the minimum Feret diameter greater than 2.1 The number of particles should not exceed 5.0%.

4.4 Loss on ignition

The loss on ignition of quartz sand should not exceed 0.02%.

4.5 Impurity element content

The content of impurity elements in quartz sand shall comply with the requirements of Table 1.