



**PLANT PURCHASING  
SPECIFICATION  
HYDERABAD**

HY 53698

REV. NO. 01

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**SILICA SAND (MEDIUM GRADE)**

**1.0 SCOPE:**

This specification covers the requirements for silica sand for use in foundry.

**2.0 APPLICATION:**

Used as raw material in the preparation of moulds and cores for manufacturing of cast iron & its alloys & aluminium copper alloy base castings.

**3.0 COMPLIANCE WITH NATIONAL / INTERNATIONAL STANDARDS:**

This specification generally conforms to IS:1987- 2002 (Reaffirmed 2007).

**4.0 SHAPE & SIZE:**

**4.1 Grain Fineness and Distribution:** Min. 72% of sand should be in well-defined grading distributed on 3 adjacent sieves. As per 4.3 average American Foundrymen's Society (AFS) fineness no. should be 40 to 50.

**4.2 Grain Shape:** Sand grain shape should be sub angular to rounded in shape.

**4.3 Size Grading:** Coarse grain fraction retained on I. S. SIEVE 600 Microns and above should be 20% max. Main fraction passing through I. S. SIEVE 600 Microns and retained on I.S. SIEVE 425 Microns, 300 Microns and 212 Microns should be min. 72%. Medium fine fraction retained on I.S. SIEVE NO.150 Microns should be 6% max. Fine fraction retained on I.S. SIEVE NO.106 Microns and below should be 2% max.

**5.0 CHEMICAL COMPOSITION:**

The chemical composition shall be as under:

Silica	:	90% Min.
Moisture	:	NIL
Carbonates	:	NIL
Clay content	:	0.5% Max.

**Revisions:**

Cl. 3.0, 4.1, 4.3, 6.0 & 8.0 modified as per letter ref. HY/QC/F&P/02 Dt. 12.03.2002.

**Issued :**

**STANDARDS ENGINEERING & IPR  
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**6.0 GENERAL INSPECTION CONDITIONS:**

Samples of 2 kgs from each consignment of each lorry will be taken for testing grain distribution as per 4.0 (sieve analysis). Approved consignments only will be permitted for unloading.

**7.0 SUPPLY CONDITION:**

During transportation by open lorry sand to be protected from moisture by providing tarpaulin all around the sand.

**8.0 REJECTION AND REPLACEMENT:**

If the material does not comply with the requirements of this specification during receipt inspection at BHEL or if any discrepancy is found during further processing of the material, BHEL reserves the right to reject the whole consignment notwithstanding any previous certification of satisfactory testing and/or inspection. The supplier shall replace the rejected material at his own cost after fulfilling all the commercial terms and conditions.