

## 0.35 E.S. Filter Sand

### Description

The sand shall be clean, washed and hydrosized to remove the majority of fines, silts and clay particles.

The sand will be from a natural uncrushed source with sub-angular to sub-rounded grains free of any friable or agglomerated grains.

The sand will be resistant to degradation during normal handling, placing and commissioning works.

### Mechanical Analysis

Sieve Size	% Passing	Typical Grading
4	100	100
2	95-100	98
1	60-80	70
0.5	20-40	30
0.425	10-30	20
0.355	0-9	5.5
0.25	0-2	0.4
0.15	0-1	0.1

<b>Silica Content</b>	>80%
<b>Effective Size</b>	D 10 = 0.35mm (+/- 5%)
<b>Uniformity Co-efficient</b>	< 2.0
<b>Bulk Density Moist (Loose)</b>	1500 kg /m <sup>3</sup>
<b>Bulk Density Moist (Compacted)</b>	1650 kg / m <sup>3</sup>
<b>Moisture Content</b>	4 - 8% w/w
<b>Silt/Clay Content</b>	< 0.5% w/w

### Chemical Analysis

		%
<b>Silica</b>	<b>SiO<sub>2</sub></b>	86.95
<b>Alumina</b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	5.27
<b>Titania</b>	<b>TiO<sub>2</sub></b>	0.194
<b>Iron</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	1.383
<b>Magnesium</b>	<b>MgO</b>	0.65
<b>Calcium</b>	<b>CaO</b>	0.95
<b>Sodium</b>	<b>Na<sub>2</sub>O</b>	0.79
<b>Potassium</b>	<b>K<sub>2</sub>O</b>	2.04
<b>Manganese</b>	<b>Mn<sub>3</sub>O<sub>4</sub></b>	0.0236
<b>Chromium</b>	<b>Cr<sub>2</sub>O<sub>3</sub></b>	0.0035
<b>Loss on Ignition</b>	<b>L on I</b>	1.68

IRWIN'S FILTER SANDS AND SUPPORT GRAVELS CONFORM TO B.S. EN 12904 TABLE 1 TYPE 2/3 LIMITS.

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