

The finest alternative

Find out about a range of
materials testing services.

Materials Testing Services

Ultra-precise and market leading





Introduction

Si Powders offers a range of materials testing services at market leading prices. Typical testing includes compressive strengths, flexural bending tests of beams, shrinkage and expansion testing of concretes and grouts. Hydration temperatures can also be measured over a large range.

Using a number of high quality testing machines such as a state-of-the-art MCC8 multi-test machine and industry-standard Malvern particle analyzers, Si Powders can provide quick and reliable feedback for materials.

All testing is performed by qualified professionals and to any relevant Australian or international standards.



Performance

Si Powders additives can be used in a range of applications including general concreting and high performance shotcrete mix designs.

Benefits of using Si Powders materials testing services include:

- Fast turn-around
- Ultra-precise testing machines
- Competitive prices

Following strict quality control procedures customers are guaranteed reliable and repeatable results.



About Us

"We provide exceptional customer service and build long-term relationships."

Our highly skilled workforce is continually expanding, and our employees range from fabricators and operators to qualified chemists and engineers.

Our diverse vendor list ranges from multinational mining and construction giants, large Australian contractors, to local batch plants and concreters.



Contact Us

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Particle Analysis

Particle size analysis, particle size measurement, or simply particle sizing is the collective name of the technical procedures, or laboratory techniques which determines the size range, and/or the average, or mean size of the particles in a liquid sample.

Particle size analysis is part of particle science, and its determination is carried out generally in particle technology laboratories. The particle size can have considerable importance in a number of industries including the chemical, food, mining, forestry, agriculture, nutrition, pharmaceutical, energy, and aggregate industries.

At Si Powders we can determine the average size of powder particles, the surface area and the top sized particles. Optical microscopy services can determine the shape and particle interaction with full sized images available. All work is carried out by professional chemists and engineers to Australian Standards, particular ISO13320:2009 and AS 4863.1-2000



Starting from
\$35 per sample
(ex-GST)

MASTERSIZER

Result: Analysis Report

Sample Details

Sample ID: B285 - HS30
Sample File: SIP
Sample Path: C:\SIZERS\DATA\
Sample Notes: Sample taken: 29/09/16
Wagners - C44
Operator: D. Eberhard

Run Number: 65
Record Number: 1163

Measured: Thu 29 Sep 2016 3:43PM
Analysed: Thu 29 Sep 2016 3:43PM
Result Source: Analysed

System Details

Range Lens: 300RF mm
Presentation: 3_FA
Analysis Model: Polydisperse
Modifications: None

Beam Length: 2.40 mm
[Particle R.I. = (1.6800, 0.1000); Dispersant R.I. = 1.4780]

Sampler: None

Obscuration: 24.2 %

Residual: 0.465 %

Result Statistics

Distribution Type: Volume
Mean Diameters:
D [4, 3] = 9.13 um

Concentration = 0.0122 %Vol
D (v, 0.1) = 0.48 um
D [3, 2] = 1.47 um

Density = 1.000 g / cub. cm
D (v, 0.5) = 7.14 um
Span = 2.781E+00

Specific S.A. = 4.0797 sq. m / g
D (v, 0.9) = 20.34 um
Uniformity = 8.877E-01

Sample provided



Initial trials to
determine
dispersion
medium



15 x reports
taken per sample



PDF report
given of most
suitable analysis

Material Testing

Si Powders offers a range of material testing services using highly precise measurement equipment. Some of the testing that can be performed in the laboratory include compressive and flexural strength, hydration temperature, shrinkage and expansion testing and much more. Typical standards utilized include AS2350, AS1012 and AS1478. Si Powders can mix cementitious materials on site and cure the samples in specialized water curing tanks to ensure that uniform results are achieved. The temperature and humidity controlled laboratory minimizes curing variations. The MCC8 multi-test machine has a 2000kN capacity and can test customer provided samples of a range of sizes, whether it be 100 mm cubes or 50 mm cylinders.

The turn-around time from sample receipt is 2-3 days and is often completed on the day of receipt to minimize customer waiting times.

Starting from
\$95 per sample
(ex-GST)

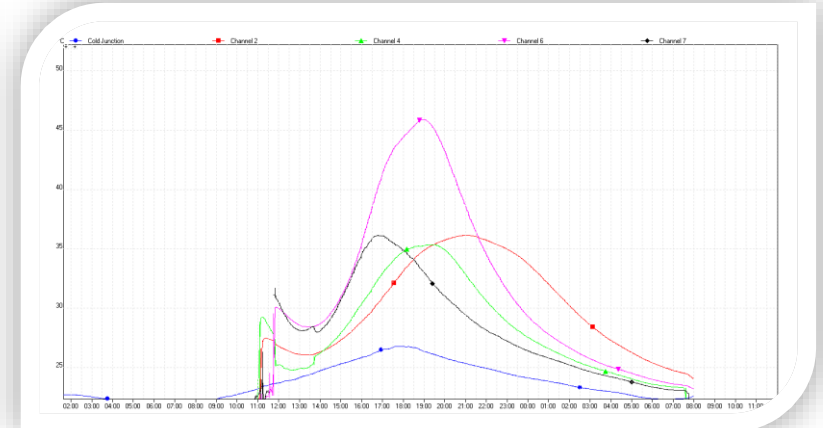
MCH TEST REPORT

Specimen type : Repair Mortar
Cement type : Sew-Hi
Test date : 17/12/2015

Certificate number : 29CCF
Certificate date : 17/12/2015
Cem.content kg/m³ :
Sampling location : 9 Holt Drive

Testing apparatus : MCC8
Notes : 3 day strength of Sew-Hi in 10% Sulphuric Acid (14-12-15)

Specimen ID.	Dimension mm	Age	Sampling date	Mass (Kg)	Density (Kg/m³)	Area (mm²)	Load of failure (kN)	Stress (MPa)	Failure appearance
3d - no3	50x50x50	3d	22/12/2009	0.32212	2576.96	2500	211.7	84.69	Satisfactory
3d - no2	50x50x50	3d	22/12/2009	0.32064	2565.12	2500	182	72.82	Satisfactory
3d - no1	50x50x50	3d	22/12/2009	0.32337	2586.96	2500	190.5	76.19	Satisfactory
Average :							194.73(kN)	77.90(MPa)	



Sample provided



Testing to Australian
Standard



Finished Report within 2-3
days

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