

# Measurement of SiO<sub>2</sub> purity

[SJ-MM-008]

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Supersedes prior issues

Quality Assurance

## Test procedure

1. Take powder sample by 3 ~ 4g and sinter the sample in a electric oven at 850 °C for 30 min. to get rid of organic matters.
2. Take sintered powder by 1.5 ~ 2g into 20ml of conc. HCl solution.
3. Dry solutin well.
4. Repeat step 2, 3 once more.
5. Put the sample in a convection oven and dry at 110 ~ 120 °C for 2 hours then cool the sample with diluted HCl solution to room temperature.
6. Wash and filter the sample until there is no trace of Cl compound detected(Indicator K<sub>2</sub>CrO<sub>4</sub> and AgNO<sub>2</sub>)
7. Sinter the sample and filter paper together in a electric oven for 30 minutes.
8. Take the sintered sample

## Calculations

$$\text{Purity of SiO}_2(\%) = \frac{\text{Wt of Sample in Grams}}{\text{Final volume in cc}}$$

