## The Technical Association of Refractories, Japan Certified Reference Material Series for X-ray Fluorescence Analysis of Refractories JRRM 221-232 (Series №2 for Silica Refractories) Instruction Manual

## 1. General

This Certified Reference Material Series (SeRM) №2 JRRM 221-232, for Silica Refractories had been prepared and given analytical values in conformity with JIS (Japanese Industrial Standards) R 2212-2:2006 "Methods for chemical analysis of refractory products—Part 2:Silica refractories" and ISO 12677:2003 "Chemical analysis of refractory products by X-ray fluorescence (XRF)—Fused cast-bead method". The Technical Association of Refractories, Japan (TARJ) Standardization Committee (TARJ/SC) certified these values on 9, June, 2017.

This SeRM is composed of 12 RMs. Approximately 20 g of each RM are contained in the labeled glass bottles.

The values of each chemical component in each RM in this series were designed to be independent from other component values, and from the values of all other chemical components in other RMs in this series.

We are completely equipped with a variety of SeRMs for XRF of refractories that are distributed by SEISHIN TRADING CO., LTD.

## 2. Scope

This series, JRRM 221-232, is applicable to the XRF fused cast bead method<sup>1)</sup> for fireclay materials, but not for the XRF briquette method.

Note 1: Refer to JIS R 2216 :2005 (Method for X-ray fluorescence spectrometric analysis of refractory products) or ISO 12677 :2003 (Chemical analysis of refractory products by X-ray fluorescence (XRF) — Fused cast-bead method).

## 3. Cautions for storage and handling

- (1) The RMs shall be stored under dry conditions in which the temperature and humidity are kept constant, and out of direct sunlight.
- (2) The RMs shall be kept homogeneous. The RMs must be kept in a place with no vibrations, and mixed well before use.
- (3) Only the minimum amount needed should be taken from the bottle. The remainder must not be put back in the same bottle.
- (4) The certified values of RMs show the contents after igniting for an hour at 800±25 °C. Before sampling, the RMs should be ignited at 800 °C and cooled to room temperature in a desiccator, although analytical samples should be ignited for one hour at 1050 °C. When slight sintering occurs in the RMs after ignition, roughly grind it in an agate mortar and then weigh to make the fused cast beads.

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