

Title (en)

A REFRACTORY BRICK, ITS COMPOSITION, AND PROCESS FOR MANUFACTURING THEREOF

Title (de)

FEUERFESTER STEIN, DESSEN ZUSAMMENSETZUNG UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

BRIQUE RÉFRACTAIRE, SA COMPOSITION ET SON PROCÉDÉ DE FABRICATION

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Application

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Abstract (en)

[origin: WO2017116313A1] The present disclosure relates generally to a composition for a refractory article such as a refractory brick, having enhanced chemical infiltration resistance, anti-hydration, and low heat conductivity properties. The refractory brick composition comprises olivine 40-90 %, elastifier 5-35 %, silicon carbide 1 - 15 %, and magnesia to make up to 100% by weight of dry admixture. Anti-hydration property of the refractory brick is drastically improved and can provide an advantage of enhanced product shelf life and simple, cost effective product transportation and storage logistics. Thermal conductivity property of the refractory brick is approximately below 2.20 W/mK at the temperature range of 450 - 1200 °C, and is insensitive with respect to the firing temperature. An average permeability of the refractory brick is significantly lower than that of conventional refractory brick by at least 73%. Additionally, the present disclosure relates to a method for producing a refractory brick according to the composition disclosed herein.

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