

Pre-cast blocks and "HRS" **for Coke Oven**

Graze coated oven door



After 12 years application



End-flue block



SHINAGAWA provides various kinds of low thermal expansion block with high stability for coke oven.

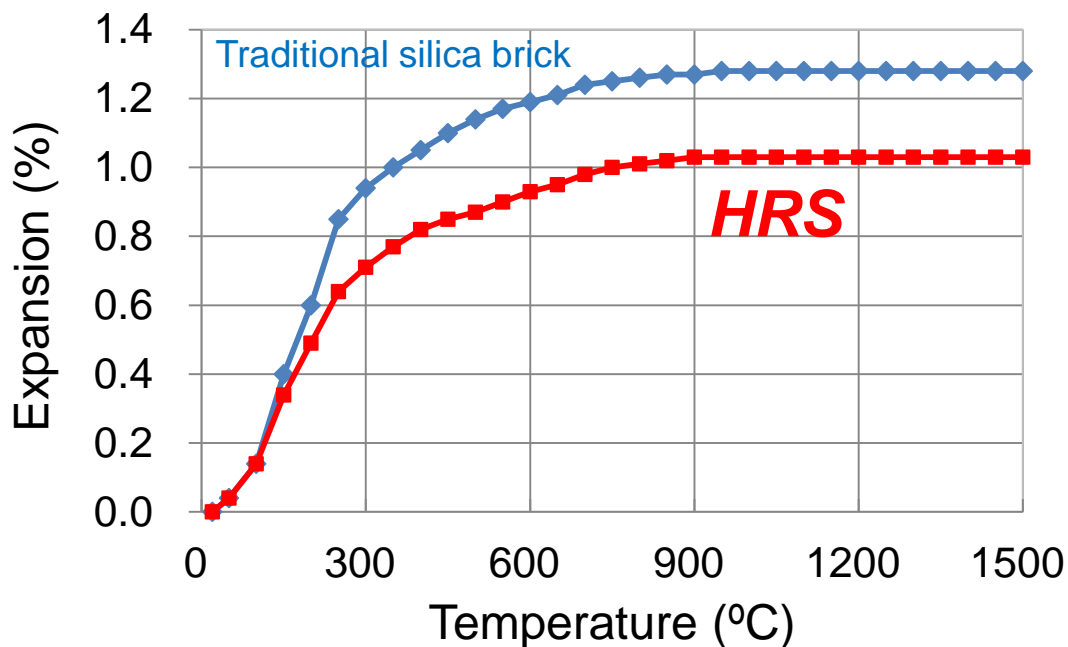
Stable structure of refractory block is achieved by our controlled manufacturing process. In addition, graze coating technology enables easy removal of adhered coal tar pitch. Long service life and reduction of maintenance load are expected.

HRS is the silica brick carefully designed for quick repair as well as long term stability in use.

Due to high thermal expansion at low temperature range, traditional silica brick causes thermal spalling in the hot-exchange condition or rapid heating up after the exchange. HRS allows quick repairing with high temperature exchange and rapid heating up.

During long term application, mineralogical composition of HRS changes to that of the traditional silica brick. Thus, high stability of chamber wall is also expected.

Thermal expansion curves



Spalling test

Rapid heating from R.T.	Traditional silica brick	HRS
to 200 °C	No crack	No crack
to 300 °C	Cracking	No crack
to 400 °C	Cracking	No crack
to 500 °C	Cracking	No crack
to 600 °C	Cracking	No crack

HRS

