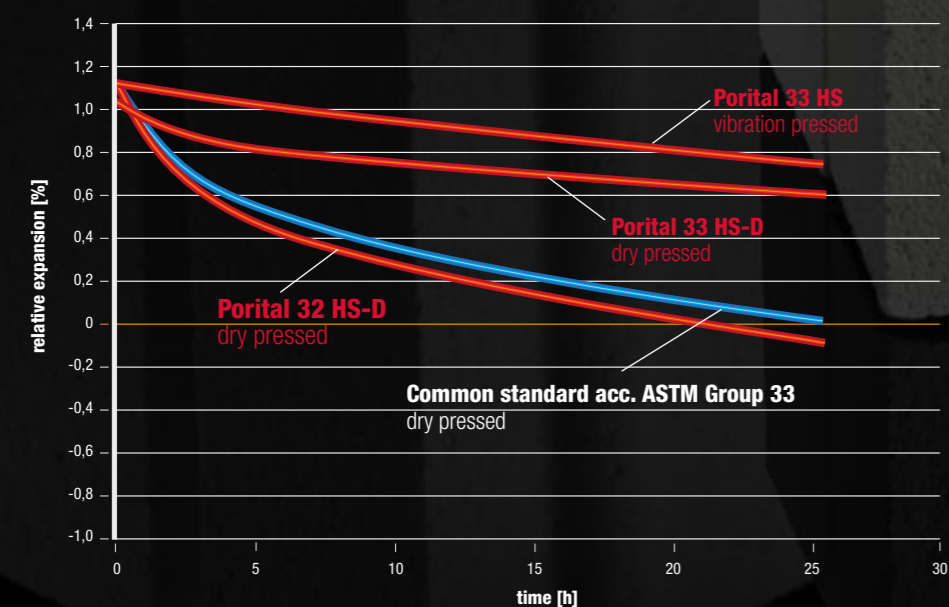
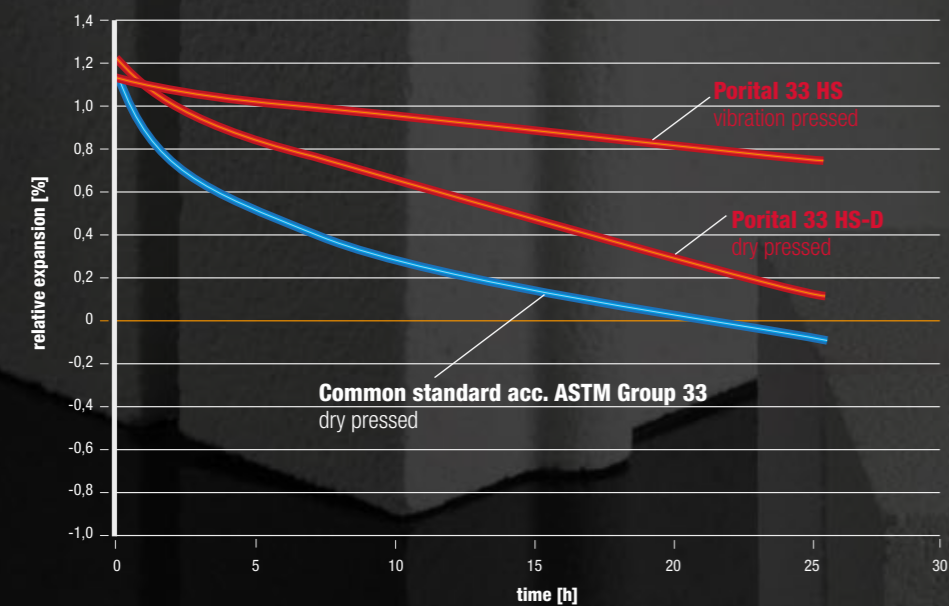
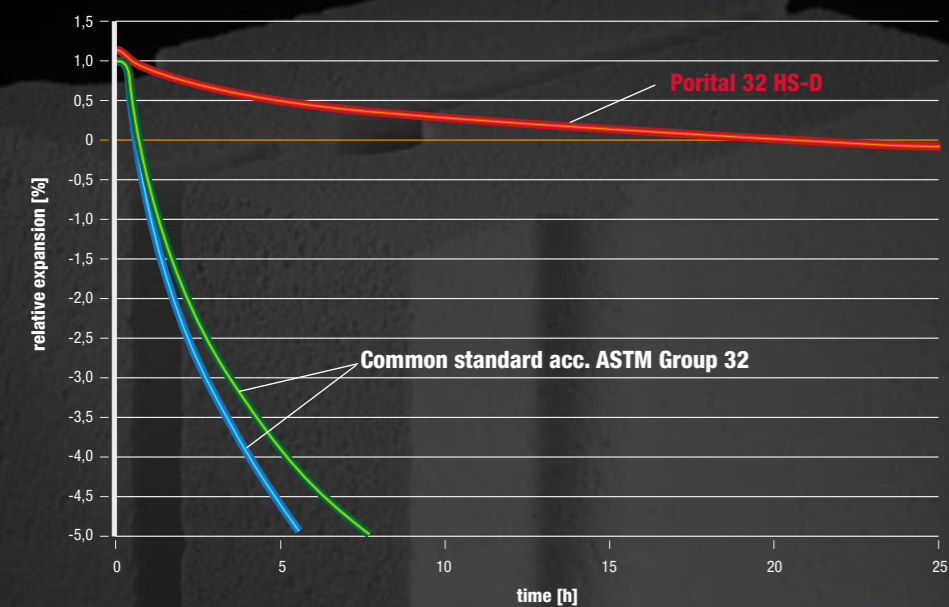


## Comparison of creep rate 1600 °C load - 0,1 MPa



# STEULER

Refractory Linings

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Refractory Linings



## HOLLOW SPHERE CORUNDUM REFRACTORY MATERIALS **FOR** **HIGH TEMPERATURE KILNS**

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All data relate to our current state of knowledge; they do not represent quality specifications.  
Technical details subject to change. FF 0064 1803 EN 500 Printed in Germany

FOCUS ON PERFORMANCE

# HOLLOW SPHERE CORUNDUM REFRACTORY MATERIALS FOR HIGH TEMPERATURE KILNS

Insulation materials and light-weight refractory bricks based on hollow sphere corundum are used at extreme temperatures to line kilns in the ceramic industry, and always whenever ceramic fibre lining cannot be used.

Due to their very good thermal shock resistance properties, they are ideal for building kilns that are operated periodically up to combustion temperatures of up to approx. 1800 °C, e.g. for sintering high alumina ceramics or also high refractory products. The materials are usually used as hot face layer in this type of kiln.

Pure hollow sphere corundum materials can also be used to line kilns in which aggressive atmospheric-related corrosion of the brickwork is expected. Whenever there are halides, for instance fluorine or chlorine, or even a high concentration of hydrogen in the atmosphere, these materials in particular are a good option for durable and resistant lining. They can be used at the front and also as insulation in the rear brickwork. In extreme cases, there is also a practically SiO<sub>2</sub>-free version of the material available.

## EFFICIENT MATERIALS FOR A HIGHER PRODUCTION SECURITY

Our development departments have set themselves the goal of developing and supplying efficient materials for each individual application. The focus is on longer service life and optimum usage conditions for our customers. The concept that shows the most efficient solution in the cost-benefit analysis is demonstrated in the deliberation of all production parameters and conditions. Because each production and plant concept has its own development potential - and we develop the right material for this.

Sorte Brand	Formgebung Brand	Sorten- Nr.  Brand No.	Chemische Analyse Chemical analysis			RD BD	Po Po	KBF MOR	AGT * MST *	DE-105 RUL-t05	WD Th. Exp.	Wärmeleitfähigkeit Thermal Conductivity		
			Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>							1000 °C	400 °C	800 °C
			%	g/cm <sup>3</sup>	Vol. %	N/ mm <sup>2</sup>	°C	°C	%	W/mK				

Porital 32 HS-D	trocken gepresst / dry pressed	6166	87	12	0,3	1,50	56	12	1650	> 1670	0,65	1,10	1,00	1,20
Porital 33 HS-D	trocken gepresst / dry pressed	6256	88	11	0,3	1,45	58	12	1700	> 1670	0,65	1,10	1,00	1,20
Porital 33 HS	vibrationsge- formt / vibration pressed	6255	89	10	0,1	1,45	52	12	1800	> 1670	0,65	1,10	1,05	1,20
Porital 34 HS	vibrationsge- formt / vibration pressed	6155	99	0,7	0,1	1,55	52	12		> 1670	0,82	1,20	1,15	1,30

**Combustion temperatures above 1800 °C**

**Resistant to chemically aggressive atmosphere**

**Excellent thermal shock resistance**

**Excellent hot properties**

**High compressive strength**

**Precise shaping and tight dimensional tolerances**