

All tests at our Institute are conducted by experts. Our employees include specialists from the fields of physics, chemistry, and mineralogy as well as material testing and technology.

Further testing methods are:

- Gas Corrosion Tests for Reducing Media
- Rotary Kiln Test
- Gas Permeability of Refractories at Elevated Temperature
- Induction Melting Aggregates
- Wedge-Splitting Test
- Quantitative Oxidation Test
- Friction Wear
- Computer-Aided Thermochemistry
- Thermal Conductivity

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Deutsches Institut
für Feuerfest und
Keramik GmbH

We are a central institute with more than 50 years of experience in all areas of refractories technology. We are absolutely committed to neutrality and are therefore a partner to all companies working in refractories technology.

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Blast Wear
up to
1400 °C

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In many high temperature processes where highly accelerated, particle loaded flows are present, blast wear is the reason for premature failure of constructions. Results of the standardised test method for blast wear of refractories at room temperature (ASTM C 704) are little transferable to hot conditions.

Therefore DIFK developed a new testing facility on the basis of ASTM C 704 for tests at temperatures between 650 and 1400°C (Fig. 1). The abrasive material (SiC F36) is injected by a feeding device in accordance with ASTM C 704.



Fig. 1: Blast wear test at elevated temperature.

The SiC and the compressed air is heated up to the test conditions by a coaxial gas burner before hitting the sample.

The angle of operation may be agreed upon the partners, the temperature as well.

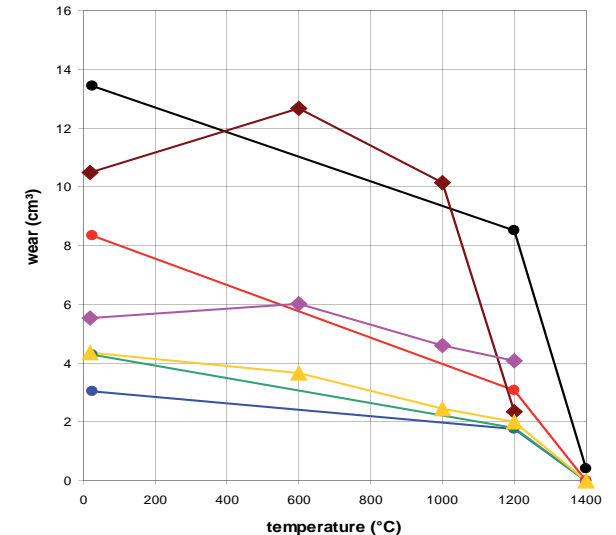


Fig. 2: Results of blast abrasion tests on different unshaped refractories at temperatures up to 1400°C according to ASTM C 704.