

# Technical data

## BSA 1650 from HASLE Refractories A/S

		HASLE
Chemical analysis:		BSA 1650
Al <sub>2</sub> O <sub>3</sub> .....	%	61
TiO <sub>2</sub> .....	%	1,0
SiO <sub>2</sub> .....	%	29
Fe <sub>2</sub> O <sub>3</sub> .....	%	1,0
CaO.....	%	6,2
SiC.....	%	-
<b>Physical data:</b>		
Refractoriness	PCE	35
Max. service temperature	°C	1650
Bulk density	kg/m <sup>3</sup>	2,3
Max. grain size	mm	5
<b>Modulus of rupture</b>		
after heating to:	110°C MPa	9
	500°C MPa	4
	1000°C MPa	6
	1500°C MPa	8
<b>Cold crushing strength</b>		
after heating to:	110°C MPa	80
	500°C MPa	60
	1000°C MPa	50
	1500°C MPa	60
<b>Drying shrinkage:</b>		
Linear shrinkage	110°C %	0,2
excl. drying shrinkage		
after heating to:	500°C %	0,1
	1000°C %	0,1
	1500°C %	1,8
<b>Thermal conductivity:</b>		
	400°C W/mK	1,05
	800°C W/mK	1,10
	1200°C W/mK	1,16
<b>Alkali test</b> (scale 0-10) .....		5
<b>Resistance to abrasion</b> .....	g/cm <sup>2</sup>	0,20
<b>Resistance to thermal shock</b> .....		extra high
<b>Reversible linear expansion</b>		
to 1000°C.....	%	0,78
<b>Average water addition</b> .....	%	8

### Alkali test

The alkali test according to DIN 51069, page 2, as slight, medium or heavy. This evaluation is supplemented with the 0-10 points scale of HASLE Refractories A/S, which system in principle states the depth of attack in mm. The above data are subject to normal deviation and should not be used as specifications.

The technical data represent average reference values established by DIN- and EN-test procedures in our ceramic laboratory. They serve to give general information, they are liable to natural deviations, and they are not to be cited as guaranteed properties or guaranteed values.