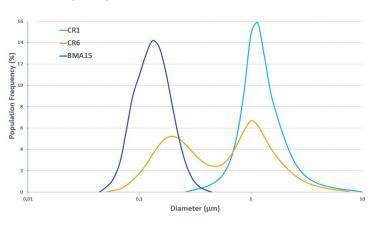
BAIKALOX®

Characteristics

- Thanks to our use of three different Baikowski[®] process routes (Alum, Bayer Modified and Aluminium Hydrolysis), all our High Purity Alumina products are controlled in:
- Particle size & particle size distribution (PSD)
- Chemical purity (3N, 4N and beyond)
- Crystalline phase
- Specific surface area (wide range of SSA available)
- Morphology

> Example of particle size distributions



Baikalox® range

Process route		Alum route														
Baikalox [®] products (Typical values)		A		GE			CR				ВА		BRA		SM	SMA
Product name		A125	GE30	GE6	GEA6	CR125	CR30F	CR6	CR1	BA20	BA15	BRA105	BRA15	BMA15	SM8	SMA6
Chemical Purity		4N														
Crystalline phase (%) γ/α		100/0	20/80	0/1	100	100/0	20/80	0 0/100		3/97	0/100	90/10	0/100			
Specific Surface Area (m²/g) BET		106	25	6	6	105	26	6	3	21	15	95	15	15	10	7
PSD (μm)	d ₅₀	6.0	8.0	9.0	8.0	0.3	0.4	0.6	1.0	11	10	0.3	0.4	0.1	0.1	0.2
Bulk density (g/cm ³)		0.2	0.3	0.4	0.3	0.1	0.3	0.6	0.6	0.3	0.3	0.2	0.4	0.8	0.8	0.9
Tapped density (g/cm ³)		0.3	0.6	0.7	0.4	0.2	0.5	0.8	1.0	0.5	0.5	0.3	0.6	1.1	1.1	1.3
Elemental Analysis (ppm) <i>ICP</i>	Na	10	12			12				13		12		10	13	
	Si	12	18			20				12		15		5	22	
	Fe	4	4			4			5		4		5	6		
	Ca	2	2			2			2		2		4	4		
	К	20	18			20			18		20		15	11		

This is only an overview of the existing range.

Please contact our sales department for more information.



Process route		Bayer Modified route											Aluminium Hydrolysis route		
Baikalox [®] products (Typical values)		н	IP		Т	СР		LS	РВ			SA			
Product name		HP DBM	HPT DBM	TCP DBM	TCP-LS DBM	TCPT DBM	TCPT-LS DBM	LSDBM	PB4 DBM	PB8 DBM	PB12 DBM	SA80	SA8 DBM	SA5 DBM	
Chemical Purity		3N											4N		
Crystalline phase		α									Transition	α			
Specific Surface Area (m²/g) <i>BET</i>		8	4	7	9	4	4	3	4	8	12	80	8	5	
PSD (μm)	d ₅₀	0.4	0.8	0.4	0.4	0.8	0.8	1.2	0.8	0.3	0.3	20.6	0.3	0.8	
	Green density (g/cm ³) (Uniaxial pressing at 350 bar)		2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.0	-	2.2	2.2	
	Fired density (g/cm ³) (Sintered at 1510°C for 2h)		3.85	3.90	3.90	3.85	3.85	3.80*	3.90	3.95	3.92	-	3.94**	3.82	
Linear Shrinkage (%)		17.5	16.0	17.5	17.5	16.0	16.0	15.4	16.5	18.5	20.7	-	17.4	15.6	
Elemental	Na	30		600	30	600	90	175	43		5				
Analysis	Si	30			15		25	340	10		15				
(ppm)	Fe	40		80				90	80			3			
ICP	Ca	25			L	15		380	50			3			

This is only an overview of the existing range. Please contact our sales department for more information. *Sintered at 1620°C for 1.5h

** With MgO addition (500ppm)

Applications

> Baikalox[®] is designed for:

- Thermal conductivity
- **Dielectric** properties
- Mechanical properties (as a filler in a matrix, or in a ready to use polishing solution thanks to alumina intrinsic hardness)
- **Optical** properties (visible & IR)
- Sintering properties (high reactivity at low temperature)





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The information and data contained in this document are based on tests believed to be reliable and are indicative only. They are given to demonstrate the typical values attached to every single product in the range, but should under no circumstance be considered as a formal commitment. Depending on the measurement methods and/or instrumentation, the results may vary from information provided herein. Baikowski* and its related companies (subsidiary and affiliated companies) are neither responsible nor liable for results obtained from the use of the products. Because of numerous factors affecting results, Baikowski* makes no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Each purchaser must conduct its own testing for safety and regulatory evaluations. Baikowski SA reserves the right to change the information given herein without prior notice.