

# Reactive Alumina LISAL<sup>TM</sup>

# Product Information

## 1

### **Description**

LISAL<sup>TM</sup> reactive alumina as a basic component of shaped and unshaped refractories are produced into a series of different grain size distribution of reactive alumina powder by ball mills process. A large products portfolio can be provided that are classified by calcination degrees, different soda contents and sizes.

LISAL<sup>TM</sup> reactive alumina as a matrix of refractory has low open porosity, excellent sinter reactivity, high purity, water demand reduction, low dilatants for optimizing refractories performance.

## 2

### **Application**

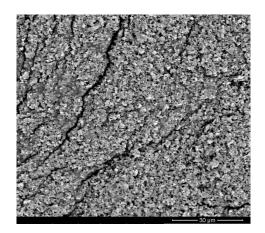
 $LISAL^{TM}$  reactive alumina are widely used in refractory bricks, nozzles, castables, drying agent etc.

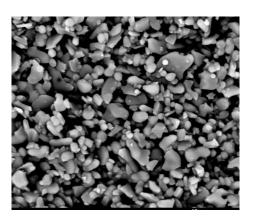




### 3

### **Product Picture**





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## Packaging and Storage

Convenient packages of 25kg paper/plastic woven bag as well as 1mt bulk bag are available. Other customized packages are provided upon request.

For best product performance and longer shelf life, re-packing is not recommended.



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### **Product Information**

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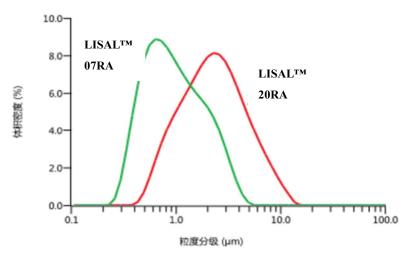
## **Chemical & Physical Properties**

#### **Mono-Modal Reactive Alumina**

Item		LISAL™ 07RA		LISAL™	<sup>1</sup> 15RA	LISAL™ 20RA		
Chemical Composition*		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	
$Al_2O_3$	[%]	99.2	≥99.0	99.2	≥99.0	99.2	≥99.0	
Na <sub>2</sub> O	[%]	0.37	≤0.45	0.32	≤0.45	0.37	≤0.45	
SiO <sub>2</sub>	[%]	0.08	≤0.15	0.08	≤0.15	0.08	≤0.15	
Fe <sub>2</sub> O <sub>3</sub>	[%]	0.05	≤0.15	0.05	≤0.15	0.05	≤0.15	
Physical properties**		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	
D50	[um]	0.8	≤1.1	1.5	≤2.0	2.3	€3.0	
BET***	[m <sup>2</sup> /g]	3.5	≥2.0	3.1	≥1.0	1.5	≥1.0	

<sup>\*:</sup> Chemical test is based on X-Ray Flourescence from Thermal Science.

<sup>\*\*\*:</sup> BET test is based on Micromeritics Gemini VII 2390



The above mentioned data represent standard values obtained from our current production line. Guarantees with respect of these data are only valid if agreed upon in writing. We reserve the right to make alterations due to technical developments.

<sup>\*\*:</sup> Physical test is based on Mastersizer 3000



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## **Chemical & Physical Properties**

#### **Mono-Modal Reactive Alumina (Low Soda)**

Item		LISAL™ 05RAL		LISAL™ 07RAL		LISAL™ 15RAL		LISAL™ 20RAL	
Chemical Composition*		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.
Al <sub>2</sub> O <sub>3</sub>	[%]	99.2	≥99.0	99.2	≥99.0	99.2	≥99.0	99.2	≥99.0
Na <sub>2</sub> O	[%]	0.07	≤0.15	0.07	≤0.15	0.07	≤0.15	0.07	≤0.15
SiO <sub>2</sub>	[%]	0.08	≤0.15	0.08	≤0.15	0.08	≤0.15	0.08	≤0.15
Fe <sub>2</sub> O <sub>3</sub>	[%]	0.05	≤0.15	0.05	≤0.15	0.05	≤0.15	0.05	≤0.15
Physical properties**		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.
D50	[um]	0.6	≤0.8	0.9	≤1.2	1.5	≤2.0	2.1	€3.0
BET***	[m <sup>2</sup> /g]	7.6	≥4.0	6.5	≥4.0	1.9	≥1.0	1.5	≥1.0

<sup>\*:</sup> Chemical test is based on X-Ray Flourescence from Thermal Science.

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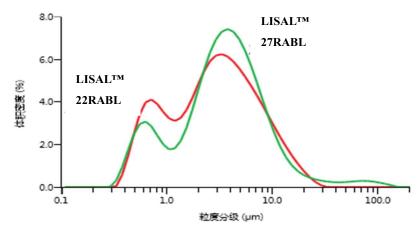
## **Chemical & Physical Properties**

#### Bi-Modal and Multi-Modal Reactive Alumina

Item		LISAL™ 13RABL		LISAL™ 22RABL		LISAL <sup>TM</sup> 27RABL		LISAL™ 15RAM	
Chemical Composition*		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.
$Al_2O_3$	[%]	99.2	≥99.0	99.2	≥99.0	99.2	≥99.0	99.2	≥99.0
Na <sub>2</sub> O	[%]	0.08	≤0.15	0.08	≤0.15	0.08	≤0.15	0.15	≤0.15
SiO <sub>2</sub>	[%]	0.07	≤0.15	0.07	≤0.15	0.07	≤0.15	0.08	≤0.15
Fe <sub>2</sub> O <sub>3</sub>	[%]	0.05	≤0.15	0.05	≤0.15	0.05	≤0.15	0.05	≤0.15
Physical Properties**		Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.	Typical	Min./Max.
D50	[um]	1.3	≤2.0	2.2	≤3.0	2.7	≪4.0	2.1	€3.0
BET***	[m <sup>2</sup> /g]	4.3	≥3.0	3.7	≥2.0	3.1	≥1.0	3.8	≥2.0
Size distribution		Bi-Modal		Bi-Modal		Bi-Modal		Multi-Modal	

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7 Certification







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### **Shipping**



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#### **Contacts for Sales, Technical Service**

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