

## **ECO-TAB®**



**Provisional European Product Data** 

# Resource savings combined with wear resistance



Energy savings are possible in each step of metals manufacture. Almatis ECO-TAB® is a lower density alumina refractory aggregate newly developed for wear linings. ECO-TAB® contributes to energy savings, capacity improvement, and reduced material consumption through lower weight of the steel ladle working lining while maintaining long refractory life. Less energy and less refractory material are consumed, lowering the CO2 footprint.



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Chemical Composition [%]	typical	min	max
Al <sub>2</sub> O <sub>3</sub> by differences	99.5		
Na <sub>2</sub> O [%]			0.45
SiO <sub>2</sub> [%]			0.09
Fe Magnetic [%]			0.02

Physical Properties	Typical
Bulk specific Gravity [g/cm³]	3.3
Apparent Porosity [%]	11
Water Absorption [%]	3.5

All data are based upon Almatis standard test methods.

#### Sizes - Particle Size Distribution 1)

DIN <sup>1a)</sup> [mm]	Tyler <sup>1b)</sup> [mesh]	Typical [%]	Min/Max [%]
0 – 0.5 mm	- 28 mesh		
+ 0.71 mm	24	1	0 - 3
+ 0.5 mm	32	14	
+ 0.25 mm	60	37	
- 0.045 mm	325	9	2 – 20
0.5 – 1 mm	14 – 28 mesh		
+ 1.4 mm	12	1	0 - 2
+ 1.0 mm	16	19	
+ 0.71 mm	24	50	
- 0.5 mm	32	4	0 - 10

DIN <sup>1a)</sup> [mm]	Tyler <sup>1b)</sup> [mesh]	Typical [%]	Min/Max [%]
1 – 3 mm	6 – 14 mesh		
+ 4.0 mm	5	1	0 - 2
+ 3.35 mm	6	4	
+ 2.0 mm	9	52	
- 1.0 mm	16	2	0 - 10
3 - 6mm	3 – 6 mesh		
+ 6.3 mm	¹⁄₄ in.²)	1	0 - 4
+ 5.0 mm		22	
+ 4.0 mm	5	40	
- 2.0 mm	9	1	0 - 3

<sup>1)</sup> Sieve analysis as per a) DIN/ISO 3310/1, b) Tyler Screen Scale 2) ASTM E-11 (inch)



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#### **Product Characteristics**

ECO-TAB® by Almatis is a pure sintered  $\alpha$ -alumina refractory aggregate designed for wear linings of vessels with thermal cycles for example steel and foundry ladles. ECO-TAB® provides resource savings combined with strong wear resistance based on optimized material properties like density, heat capacity, and thermal conductivity.

ECO-TAB® offers the following benefits to refractory producers and end users:

- Energy savings by reduced heat capacity and thermal conductivity in industries processes with thermal cycling (e.g. steel ladle, foundry ladles)
- Strong thermomechanical stability and wear resistance comparable to standard Tabular Alumina T60/T64.
- Reduced material consumption in refractory applications due to lower product density.
- Improved flexibility in steel production processes (steel ladle weight, crane capacities).

#### Packaging available:

25 kg paper bags 1 mt big bags



#### Contacts for sales, technical information and application assistance



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**SDS 154**