

ECO-TAB®

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	Unit	Typical	Min.	Max.
Al ₂ O ₃ by difference	[%]	99.5		
Na ₂ O	[%]			0.45
SiO ₂	[%]			0.09
Fe Magnetic	[%]			0.02

Physical Properties	Unit	Typical
Bulk Specific Gravity	[g/cm ³]	3.3
Apparent Porosity	[%]	11
Water Absorption	[%]	3.5

Sizes – Particle Size Distribution¹⁾

DIN ^{1a}	Tyler ^{1b} [mesh]	Unit	Typ.	Min.	Max.	DIN ^{1a}	Tyler ^{1b} [mesh]	Unit	Typ.	Min.	Max.
0 - 0.5mm	- 28 mesh					1 - 3mm	6 - 14 mesh				
+ 0.71mm	24	[%]	1	0	3	+ 4.0mm	5	[%]	1	0	2
+ 0.5mm	32	[%]	14			+ 3.35mm	6	[%]	4		
+ 0.25mm	60	[%]	37			+ 2.0mm	9	[%]	52		
- 0.045mm	325	[%]	9	2	20	- 1.0mm	16	[%]	2	0	10
0.5 - 1mm	14 - 28 mesh					3 - 6mm	3 - 6 mesh				
+ 1.4mm	12	[%]	1	0	2	+ 6.3mm	¼ in. ²⁾	[%]	1	0	4
+ 1.0mm	16	[%]	19			+ 5.0mm	-	[%]	22		
+ 0.71mm	24	[%]	50			+ 4.0mm	5	[%]	40		
- 0.5mm	32	[%]	4	0	10	- 2.0mm	9	[%]	1	0	3

1) Sieve analysis as per a) DIN/ISO 3310/1, b) Tyler Screen Scale

2) ASTM E-11 (inch)

The typical properties are based upon the actual averages from production data. The Min/Max data show our standard product specification data for these products.

All data are based upon Almatris standard test methods. All test methods are available upon request.

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Product Description

ECO-TAB® by Almatis is a pure sintered α -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 ladle)
- 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).

Standard Packaging

- 25 kg paper bags
- 1 mt big bags

Contact for sales, technical information and application assistance

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