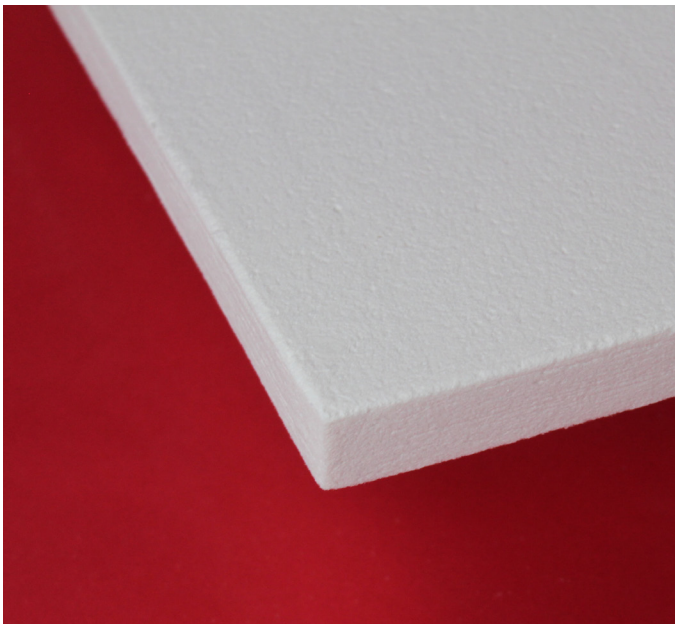
Soluble-Fiber Board Type UNIFORM B1

General Information

ZIRCAR Ceramics' Soluble-Fiber Board Type UNIFORM B1 is a rigid, medium-density utility-grade high-temperature insulation. It is a uniformly bonded combination of high-temperature "soluble" fibers and inorganic binder. UNIFORM B1 is suitable for use as a substitute for insulation containing refractory ceramic fiber materials in applications with continous temperatures to 1180°C (2156°F). The Non-RCF fibers built into this product are not regulated under EU Directive 97/69/EC.
UNIFORM B1 is vacuum-formed into flat boards and can be easily machined into complex geometries. In applications where a hardened exterior surface is desired, ZIRCAR Ceramics' Silica Rigidizer Type SI-RIG can be applied and various levels of rigidization can be achieved. UNIFORM B1 is prefired and generates no smoke or odor upon firing. UNIFORM B1 exhibits very good resistance to chemical attack with the exceptions of hydrofluoric acid, phosphoric acid and strong alkalis.



Characteristics & Properties

Color	White
Composition, %	
SiO_2	70-80
CaO + MgO	18-25
Other	<3
Loss of Ignition	<1
Organic material	0
Continuous Use Temperature, °C (°F)	1180 (2156)
Maximum Use Temperature*, °C (°F)	1275 (2372)
Density, g/cc (pcf)	0.32-0.35 (20-22)
Modulus of Rupture**, MPa (psi)	1.4-1.7 (200-250)
Compressive Strength**, MPa (psi)	
at 10% deformation	0.07 (10)
Permanent Linear Change‡, %	
24 hrs at 816°C (1500°F)	0.25
24 hrs at 982°C (1800°F)	0.25

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Characteristics & Properties Continued

Thermal Conductivity, W/m°K (BTU/hr ft² °F/in)	
at 260°C (500°F)	0.06 (0.40)
at 538°C (1000°F)	0.09 (0.62)
at 816°C (1500°F)	0.15 (1.04)
at 982°C (1800°F)	0.18 (1.32)
at 1093°C (2000°F)	0.21 (1.51)

The data presented herein is intended to help the user to determine the appropriateness of this material for their application. This data is a nominal representation of this product's properties and characteristics and therefore should not be used in preparing specifications. Properties are typical of recent production and are subject to change. * Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences. ** Properties expressed parallel to thickness. ‡ Properties expressed perpendicular to thickness.

Suggested Applications

Appliance and heat processing insulation.
Flue and chimney linings.
Furnace, kiln, and oven hot face linings.
Insulation as backup for; firebrick, insulating firebrick, rammed shapes and refractory castables.
Molten aluminum contact.
Insulation in scientific analytical instrumentation and test equipment.

Availability of Standard Boards

ITEM #	DESCRIPTION
A176A-01	UNIFORM B1, 24"W x 36"L x 1"T
A176A-02	UNIFORM B1, 24"W x 36"L x 2"T
A176A-03	UNIFORM B1, 24"W x 36"L x 3"T

To Order

Standard boards: order online or specify quantity, item # and description.
Standard boards are available for immediate shipment from stock.

Standard tolerances for boards are +/- 1/8" on length and width and +/- 1/16" on thickness.

Custom shapes: our state-of-the-art tight-tolerance machining techniques allow a wide variety of sizes and shapes to be made.

Surface treatments including rigidization with colloidal alumina (AL-R/H) or colloidal silica (SI-RIG) or coating with alumina cement (AL-CEM) are all available.

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