360 MATERIALS
Because Every Degree Counts

Alumina Setter Plate
1800C



Alumina setters are used for supporting loads in high-temperature furnaces and other thermal process systems. These dense plates are combinations of medium-sized high-purity alumina grains and an alumina binder. Dry-pressed then fully sintered, they exhibit high strength and utility in industrial applications with operating temperatures as high as 1825°C (3317°F). Alumina setters are routinely used as hearth plates in low-mass furnaces with air atmospheres operating to 1825°C (3317°F). They may be positioned directly on the furnace floor or supported with hearth posts made of reticulated alumina, bubble alumina or fiber-filled alumina tubes. These plates are also useful in furnaces with hydrogen atmospheres operating over 1700°C (3100°F). They are of exceptionally high Al2O3 purity and therefore not ideal for use in extreme thermal shock environments

TECHNICAL BENEFITS

- Chemically inert to ensure product purity
- Zero organic content to maintain clean firing environment
- Powder free surface for clean firing environment
- 1825 C maximum use limit

OPERATIONAL BENEFITS

- Increased furnace reliability
- Increased productivity
- Lowered energy costs
- Improved product quality

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Material Properties & Characteristics

Grade	1800C
Nominal Composition (wt%)	
Alumina	99.5
Silica	0.07
Iron Oxide	0.03
Other Oxides	0.4
Maximum Use Temperature (deg C)	1825
Density (pcf)	200
% Porosity	20
Thermal Expansion at 1000C in %	0.84
Bending Strength at 21C (psi)	6800
Bending Strength at 1250C (psi)	1800
Bending Strength at 1450C (psi)	1000
Thermal Conductivity at 1200C (W/mK)	2.3

Standard Sizes

- Item ALP001 – Alumina Setter Plate, 6” x 6” x 0.50” tk
- Item ALP002 – Alumina Setter Plate, 8” x 8” x 0.75” tk
- Item ALP003 – Alumina Setter Plate, 12” x 12” x 1” tk

TECHNICAL SUPPORT

Drawing upon 30 years experience in ceramics and thermal processing, 360 Materials supplies material solutions for all atmospheres up to 2400C.

IN STOCK INVENTORY

Call us at (845) 645-3635

CUSTOM SIZING

Custom sizes and shapes available upon request.

For more information on any of our products or services please contact us at: (845) 645 – 3635 or sales@360mtls.com