

GT Alumina ISO Pressed Tiles and Monolithic Cylinders

GT Alumina ISO Pressed Tile and Monolithic Linings

Our most frequently specified wear material is HMA Greenbank's ISO Pressed Alumina. GT ISO Pressed Alumina is an extremely dense ceramic material that has remarkable resistance to both sliding and impact abrasion.

The exceptional toughness and durability of GT Alumina has made it the recognised standard for long term economic lining in industrial equipment subject to high wear. It's high purity Alumina crystals are bonded together with a crystalline alumina silicate that insures the integrity of the ceramic shape after firing. GT Alumina is ideally suited for the most demanding slurry and pneumatic applications.

Pre-engineered and advanced processing techniques enable us to manufacture GT ISO Pressed Alumina in a variety of geometries from simple to complex shapes. Combined with the appropriate attachment method, GT Alumina can overcome temperature limitations, impact, and abrasion problems in many different environments.

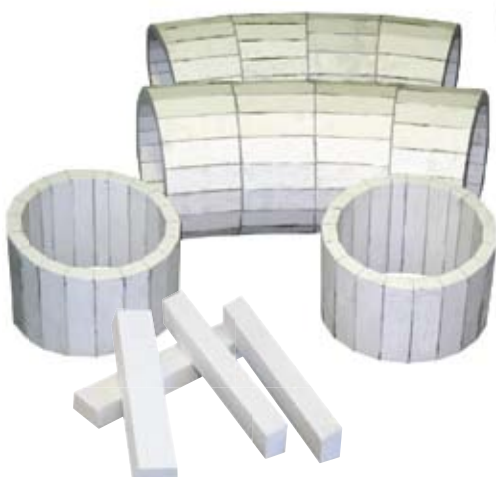


Alumax ISO Pressed tiles – Weldable System

Where high heat, impact or corrosion are considerations, attachment by welding is advisable. The weldable system permits use of GT Alumina liners to temperatures in excess of 550°C. Tiles are supplied with a tapered hole, metal insert and an Alumina cap.



The exceptional toughness and durability of GT Alumina has made it the recognised standard...



Typical Processes Utilising GT ISO Alumina

- Rock
- Coal
- Gravel
- Minerals
- Sand
- Cement Clinker
- Glass Cullet
- Lime
- Rice
- Sinter
- Taconite

Alumina

PHYSICAL PROPERTIES

Alumax ISO Pressed Alumina

Material Properties		
Alumina Content	weight%	92%
Surface Finish: As Fired	mm(m.in)	1.27 (50)
Density	g/cm ³ (lbs./ft.3)	3.60 (220)
Young's Modulus 20°C	GPa (10 ⁶ psi)	277 (40)
Shear Modulus 20°C	GPa (10 ⁶ psi)	113 (16.4)
Hardness, Vickers 20°C	GPa (Kg/mm ²)	10.3 (1050)
Flexural Strength	MPa (10 ³ psi)	310 (45)
Weibull Modulus 20°C		20
Compressive Strength 20°C	GPa (10 ³ psi)	2.13 (308)
Fracture Toughness 20°C	MPa m ^{1/2}	3.95
Thermal Conductivity 20°C	W/m-K	20
Thermal Expansion 20-800°C	x10 ⁶ /C (°F)	8.36 (4.64)
Thermal Shock Resistance, ATc	°C (°F)	210°(378°)
Maximum Use Temperature	°C (°F)	1250° (2218°)
Water Absorption		None
Gas Permeability		None
Grain Size (Equivalent Diameter)	µm(µ.in)	4.8 (189)
Manufacturing tolerance		+/- 1%

Applications:

Our industrial workhorse and most frequently specified wear material is Greenbank's GT ISO Pressed Alumina. GT ISO Pressed Alumina is an extremely dense ceramic material that has remarkable resistance to both sliding and impact abrasion. The exceptional toughness and durability of GT ISO Pressed Alumina has made it the recognised standard for industry for long term economic lining in industrial equipment subject to high wear. Its high purity Alumina crystals are bonded together with a crystalline

aluminium silicate that insures the integrity of the ceramic shape after firing. GT ISO Pressed Alumina is ideally suited for the most demanding slurry and pneumatic applications. Pre-engineered and advanced processing techniques enable us to manufacture GT ISO Pressed Alumina in a variety of geometries from simple to complex shapes. Combined with the appropriate attachment method, GT ISO Pressed Alumina can overcome temperature limitations, impact, and abrasion problems in many different environments.