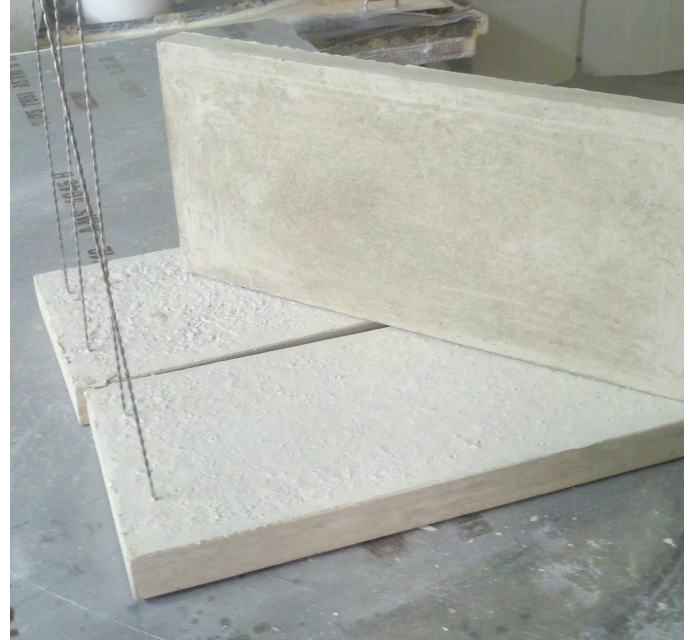




Refractory-Supported Heater Type AX-200

General Information

ZIRCAR Ceramics' Refractory-Supported Heater Type AX-200 consists of high-quality, helically-wound, iron-chrome-aluminum metallic alloy resistance heating elements fully embedded in a strong, highly stable, high-temperature refractory body. Produced on a custom basis for OEM thermal process equipment and end-users with unique requirements, AX-200 heaters routinely operate to temperatures of 1200°C (2192°F) with power loadings of 2 kw/ft². Some designs successfully carry 4 kw/ft² power density at an operating temperature of 1100°C (2012°F). These rugged heaters feature self-supporting construction and are precision-fabricated for long heater life. The metallic heating element is carefully prepared prior to being cast into the refractory to ensure uniform heat over the entire surface of the unit. The base refractory has outstanding abrasion resistance and is ideal for applications where the heating element might be subject to mechanical damage or being splashed with molten metals. The high thermal mass of the heater minimizes fast thermal changes that can be experienced with low-mass heaters. AX-200 Heaters are immune to damage from electrical shorting due to contact with materials being heated.



Characteristics & Properties

Heating Element Type	Fe-Cr-Al Alloy
Refractory Support	
Density (nominal), g/cc (pcf)	1.92 (120)
Nominal Composition, wt. %	
Al ₂ O ₃	47
SiO ₂	40
CaO	8.5
TiO ₂ + other	<4.5
Maximum Refractory Use Temperature*, °C (°F)	1300 (2400)
Porosity, % fired	2
Crushing Strength, MPa(psi) at 816°C (1500°F)	27.6 (4000)
Thermal Conductivity, W/m°K (BTU/hr ft ² °F/in)	
538°C (1000°F)	0.86 (6.0)
1100°C (2012°F)	0.90 (6.3)
Modulus of Rupture, MPa (psi) @ 816°C (1500°F)	4.1 (600)

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. * Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences.

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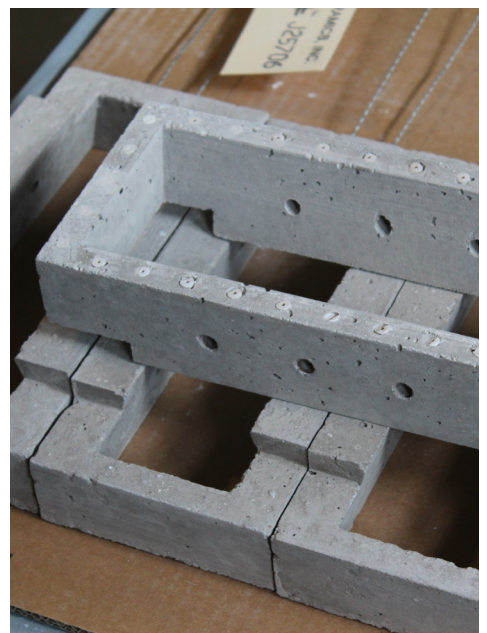
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Suggested Applications

Heating source in furnaces and industrial process equipment operating to 1200°C (2292°F).
High-temperature hotplate heating element.
Molten metal splash-resistant heating source for launders, troughs and distribution boxes.

Availability

ZIRCAR Ceramics' AX-200 Refractory-Supported heaters are produced on a custom basis. Typically they are manufactured to customer specifications. ZIRCAR Ceramics can design and construct units to satisfy a range of heating needs.



AX-200 Heaters are made in many custom configurations. They are designed and manufactured for use in applications with unique and demanding requirements.

To Order

Contact ZIRCAR Ceramics, provide drawings describing AX-200 Heater requirements, and we will provide an offer.



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