Morgan Alphawool Pyro-Stack™ Module

Product Data Sheet

Product Description

Alphawool Pyro-Stack Modules are manufactured from stacked edge-grain segments of Alphawool (polycrystalline wool) blankets. Each module is pre-compressed to a specific density and secured with two stainless steel tubes positioned away from the hot face. This design ensures exceptional thermal stability up to 1500°C in oxidizing, reducing, and chemically aggressive environments. All Pyro-Stack Modules include a standard T-Anchor system for quick and secure attachment to furnace, boiler, or kiln linings. The T-module is fixed using a pre-studded, external side-fix yoke. Custom anchor systems are available to meet specific application requirements.

Please contact us for guidance on the best internal anchoring hardware for your application.

Features

- High dimensional stability up to 1500°C
- Excellent chemical resistance in oxidizing, neutral, and mildly reducing atmospheres
- Excellent compression resistance and resiliency
- Excellent thermal insulation.
- Exempt from carcinogenicity classification under EU Directive 97/69/EC.
- Not subject to RCF regulations
- Quick, convenient and efficient installation

Applications

- Forging furnaces
- High temperature furnaces
- Industrial equipment
- Process heaters
- Reformers

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Properties	Morgan Alphawool Stacked Module
Colour	White
Max. Continuous Use Temperature, °C	1600
Classification Use Temperature, °F	2912

Thermal Conductivity* (W/m•k, BTU•in/hr•ft²•°F), ASTM C 201

Temperature (°C)	Density (kg/m³)		
	140	**170**	**192**
200	0.08	0.10	0.10
400	0.10	0.11	0.11
600	0.15	0.14	0.17
800	0.22	0.20	0.24
1000	0.31	0.27	0.34
1200	0.43	0.37	0.47
1300	0.49	0.43	0.53
1400	0.60	0.52	0.62

Chemical Analysis , %	
Alumina, Al_2O_3	72
Silica, SiO_2	28

Standard dimension and Product availability

Standard tubes and yokes for Alphawool Pyro-Stack modules are ASTM 316 stainless steel.

Higher grades of steel (ASTM 310 or Inconel 601) are also available upon required for more arduous service conditions.

Studs are a minimum of ASTM 304 stainless steel, higher grades can be specified where warranted by service conditions.

The product(s) represented are intended for industrial refractory applications. The values and application information in thi s datasheet are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product, and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials.

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