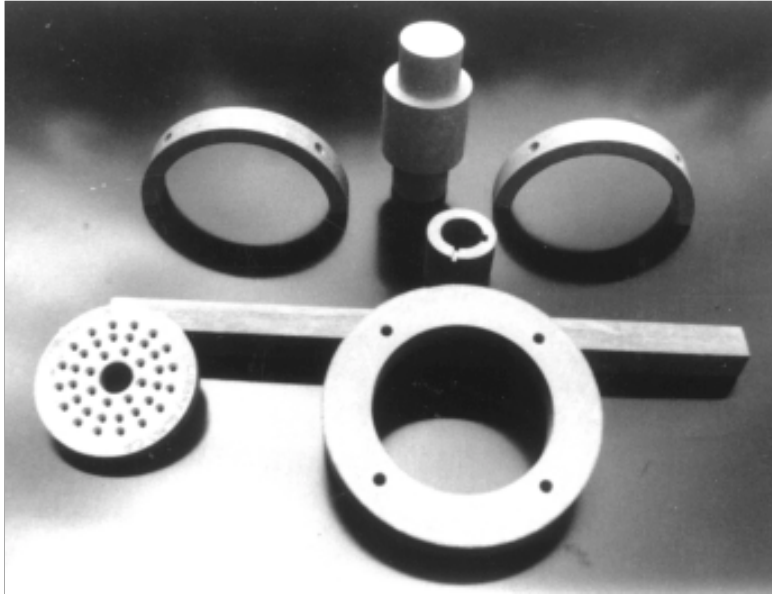


# NAD-11

## STRUCTURAL INSULATION BOARD



NAD-11 is an asbestos-free cement board with excellent properties. A high density cement board reinforced with inorganic fibers, NAD-11 is suitable for applications requiring continuous operation in temperatures up to 500°C (932°F).

### APPLICATIONS:

- Cathode support pads
- Platen insulation
- Element supports
- Oven cladding
- Furnace plates
- Induction furnaces

### ADVANTAGES:

- Dimensional stability
- Mechanical strength at temperature
- Non-combustible
- Good machining characteristics
- Chemically inert
- Asbestos-free

### MACHINED COMPONENTS:

Our machine shops use CNC tooling machines to produce precision components to customer specifications.

Pyrotek's worldwide locations provide fast reliable service. Please contact us for additional information.

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## NAD-11 TECHNICAL DATA:

### Available forms

Boards: 1220 mm x 910 mm  
48 in x 36 in

### Available thickness

6 mm - 75 mm  
0.25 in - 3.0 in

## Physical Properties

### Density

1,750 kg/m<sup>3</sup>  
109 lbs/ft<sup>3</sup>

### Moisture absorption

2.5%  
(95.0% relative humidity for 24 hrs)

### Maximum continuous service temperature

500°C  
932°F

### Compressive strength

118 MN/m<sup>2</sup>  
17,110 lbs/in<sup>2</sup>

### Flexural strength (after 24 hours)

| °C         | °F  | MN/m <sup>2</sup> | lbs/in <sup>2</sup> |
|------------|-----|-------------------|---------------------|
| at ambient |     | 32                | 4640                |
| 350        | 662 | 24                | 3480                |
| 500        | 932 | 22                | 3190                |

### Thermal conductivity

| °C  | °F  | W/(m · K) | BTU-in/ft <sup>2</sup> /hr°F |
|-----|-----|-----------|------------------------------|
| 100 | 212 | 0.37      | 2.57                         |
| 150 | 302 | 0.42      | 2.91                         |
| 200 | 392 | 0.47      | 3.26                         |

### Thermal shrinkage (after 24 hours)

| °C  | °F    | Linear % |
|-----|-------|----------|
| 350 | 660   | 0.21     |
| 500 | 930   | 0.25     |
| 705 | 1,300 | 0.57     |

## Electrical Properties

### Dielectric strength

2.9 KV/mm  
69 V/mil

### Volume resistivity

1.00 x 10<sup>4</sup> MΩ · cm  
2.54 x 10<sup>4</sup> MΩ · in

### Arc resistance

370 sec

Advanced Metals Processing Technology

**Pyrotek**

Note: The physical and chemical properties listed represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

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