ANSWERS TO FREQUENTLY ASKED QUESTIONS.....
HIGH STRENGTH VERMICULITE PANELS & CUSTOM SHAPES

1. APPLICATIONS:
   - Original equipment firebox liner, baffle, insulation.
   - Replacement of refractory panels, veneer of old refractory materials. Suitable for zero-clearance fireplaces so long as the material being replaced is of equal or lower R value.
   - Refractory replacement material for temperatures up to 2,012°F.
   - Fire protection – such as steel beam cladding, fire door cores, and laminated construction panels and surrounds.
   - Heat shield core material.

2. DURABILITY:
   - When properly installed and used according to the manufacture’s guidelines for the intended purpose, the material should provide many years of trouble-free service.
   - The surest way to damage the material is to impact it repeatedly with heavy objects or projectiles.
   - As thickness and density increase, the strength of the board does also.

3. COMPARISON TO OTHER VERMICULITE BOARDS:
   - Comparing the physical properties listed on each manufacturer’s published data sheets for like density boards, THERMAX Boards are 2-7 times stronger in crushing strength and modulus of rupture.
   - Similar chemistry, temperature limit, and thermal conductivity (k) (insulating value, R)
   - Very different manufacturing methods result in different appearance, texture, and surface quality. THERMAX Boards have sharp sturdy edges and corners, smooth consistent color, and precise milling results.
4. STOCKING AND SHIPPING:

- Presently the material is stocked in Charlotte, NC and Temple, TX. Direct shipment from one of two factories in Europe, Austria and Slovenia, is also possible.
- Normal truckload, Less-than-truckload, UPS Ground are the most common shipping methods. Boards are packed and banded on hardwood pallets, corner protected, and stretch wrapped.
- Order quantities of any size are accepted and there are no minimum order quantities.
- Shipments are normally made within 24-48 hours of order receipt.

5. CUTTING METHODS AND TOOLING REQUIREMENTS:

- Any wood-working tool may be used: drill, saw, router, etc.
- Carbide tooling is adequate.
- We utilize CNC routers and cutters to mill precision parts.
- Use of water jet is a suitable option.

6. COMPARISION TO FIRE BRICKS AND PRE-CAST SHAPES/PANELS:

- Bricks and castables come in a wide range of qualities and properties. It is not possible to make a blanket statement. Generally speaking, fire bricks and dense castables are best for the floor of wood burning appliances.
- Likewise, depending on the density and thickness, Thermax Boards may rival the properties of some bricks and castables of similar density.
- In most cases fired bricks are more dense and stronger than castables.
- In most cases dense castables (>85 pcf) cast into shapes are much heavier and somewhat stronger than vermiculite panels.

7. COST:

- Is Dependent on density, design, standard or special shape, quantity.
- When submitting your inquiry, specify your requirement according to these criteria and we will promptly send you a detailed proposal or price list. Click on “Request a Quote” at www.neuex.com.

8. MINIMUM ORDER QUANTITY:

- There is no minimum, but packing costs, freight cost/unit is higher for fewer pieces.
- 1-2 pieces would normally ship via UPS Ground. 3 or more pieces by LTL carrier.

9. BREAKAGE:

- THERMAX does not break easily. We pack it with more than is required, although we will rarely have a part break in transit.
- Impact with a pointed object or the edge of a projectile is the easiest way to fracture the material.
● THERMAX Panels are NOT recommended for the hearth (floor) of wood burning fireplaces or stoves where impact and point loading will eventually crack the panels.

10. FIXING THE BOARDS IN PLACE:

● Use of a refractory air setting mortar or Techno-Adhesive VL 1100 may be used to join the boards together or to bond them to steel or masonry.
● Steel clamps, angles, or brackets.
● Wood screws

11. OUTDOOR APPLICATIONS:

● As a general rule, vermiculite boards are not recommended for service where repeated contact with water will occur.
● Repeated and prolonged exposure to moisture will weaken the ceramic bond within the boards over time.
● Water proofing treatments are available if the boards are to be use in low temperature applications below 400°F.

12. STANDARD SIZES AND THICKNESS:

● Boards are available in sheets up to 10’ x 4’.
● The standard size for “brick wall” and “herringbone” design replacement panels is 39.4” x 24” x 1”. We stock 5/8”, 1”, and 1 ¼” thickness panels.
● Thickness range is 8mm (3/8”) up to 75mm (3”).
● We stock 8’ x 4’ sheets, 49” x 40” sheets, and 39.4 x 24” sheets in thickness ranging from ½” to 3”.
● Custom shapes are available to your specifications by use of precision milling equipment or custom molds.

13. R-VALUE & LISTING:

● The R-Value varies by density. THERMAX Boards are available in densities from 24 pcf to 75 pcf.
● The R-Value for 25 pcf density boards is 1.03 per inch of board thickness.
● The R-Value for 75 pcf density boards is 0.50 per inch of board thickness.

14. ALKALI GAS STREAMS:

● While the porosity will allow permeation of the board by gas borne substances, the bonding system of the boards is resistant to alteration by alkali salts.
15. FOOD CONTACT:

- Due to the porosity, it is not recommended as a working surface material where food and moisture will be in contact.
- It can be used as back-up insulation or the hot face lining in areas not to be in contact with food.

16. COATING AND COLORING:

- TECHNO-COAT 1100 is a coating material that adds color that is durable to the temperature limit of the boards, 2,000°F.
- The coating has the added benefit of adding surface rigidity to the board, contributing to its durability.
- A “textured” version of TECHNO-COAT adds a “rough” surface and give some three dimensional look to the boards.
- The coating is water-based, has no odor, and will dry at room temperatures. Gentle “baking” at around 150 degrees will hasten the dry out and remove any residual moisture that has penetrated the boards.

17. VERMICULITE BRICKS:

- Vermiculite bricks can be supplied in standard brick sizes: 9 x 4 ½ x 1 ¼” splits, 9 x 4 ½ x 2 ½” straights, 9 x 4 ½ x 3” straights.

18. WEIGHT:

- Dependent on density and size.
- Our standard brick wall and herringbone panels in SF-750 weight approximately 25 lbs. each. SF-600 panels weigh approximately 22 lbs. each.

19. DISPOSAL:

- THERMAX Vermiculite is a naturally occurring mineral and is safe to dispose of as supplied.
- No asbestos, harmful fibers or chemicals.
- Suitable as a soil additive for aeration and moisture retention.