



# PENNGUARD™ BLOCK LINING SYSTEM

The original, proven system to protect power plant chimneys and ducts from corrosion.







## PENNGUARD™ BLOCK LINING SYSTEMS

One brand is recognized as the most reliable and acknowledged leader in corrosion-resistant chimney linings for the power generation industry—PENNGUARD Block Lining System from ErgonArmor.

Since the earliest field trials in the late 1970's, the use of PENNGUARD Block Lining System expanded from a few small chimneys and duct trains in the USA to its position today—a cornerstone of the largest power plant chimneys in the world.

For wet flue gas desulfurization (FGD), reheat, or high-temperature bypass, whether new construction or retrofit, PENNGUARD Block Lining System offers the most cost effective and reliable corrosion protection for its field of use in the market today.

### PENNGUARD Adhesive Membrane

1/8 in. (3 mm) thickness

### PENNGUARD Block

1 1/2 – 2 in. (38 – 50 mm) thickness depends on application

### Acidic Flue Gas Condensate

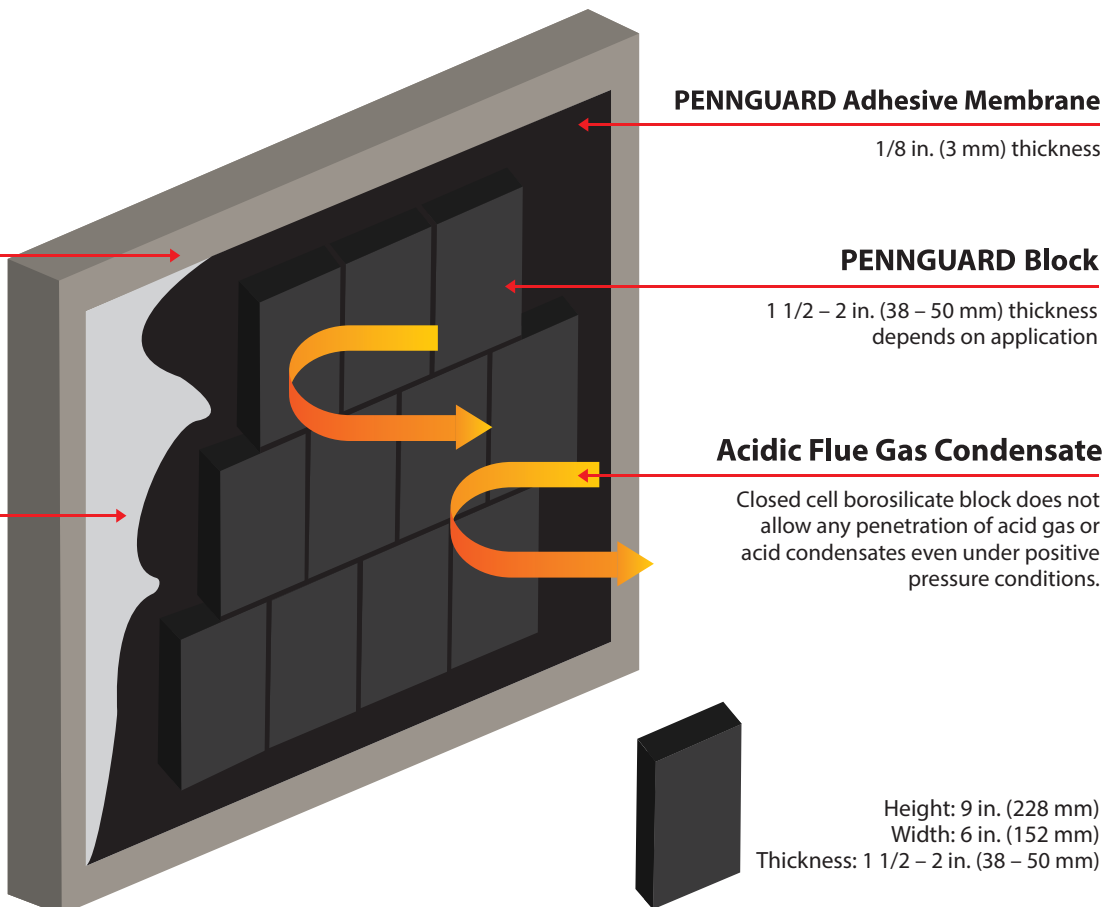
Closed cell borosilicate block does not allow any penetration of acid gas or acid condensates even under positive pressure conditions.

### Substrate

- Steel
- Concrete
- Ceramic Brick
- Fiber Reinforced Plastic (FRP)

### PENNGUARD Primer

3 types, depending on substrate





## FEATURES

### CHEMICAL RESISTANT

Suitable for a wide range of fuels (coal, oil, petcoke, lignite, biofuels) and operating conditions, from low-temperature wet flue gas to high-temperature, untreated flue gas, even with high SO<sub>3</sub> content.

### TEMPERATURE RESISTANT

Handles dynamic conditions including continuous cycling common in peaking plants, typical temperatures up to 350°F (175°C), and higher temperatures short-term, such as in the event of an air preheater failure.

### LONG SERVICE LIFE

Highly resilient and durable. Many installations are still in use after 20 years with virtually no maintenance or repair.

### VERSATILE

Suitable for new construction directly bonded to either steel or concrete, or for retrofits, where it can be bonded to an existing brick liner, the concrete windshield, flake glass coatings, FRP or pitted alloys.

### PROVEN IN ACTIVE SEISMIC ZONES

Chimneys lined with the PENNGUARD System have survived real-world earthquakes without incurring damage. This capability makes the system an obvious chimney lining candidate in seismically active zones.

### LIGHTWEIGHT

An installed PENNGUARD Lining weighs just 2.5–3 lbs/sq ft (12.2–14.5 kg/sm) and does not require anchoring.

Ask us how **FM Approved**  
**PENNGUARD Block Lining System**  
**protects your chimney against**  
**structural damage to minimize**  
**downtime after a chimney fire.**







The PENNGUARD Block Lining System has been used to solve a variety of complex problems. Whether your issues are corrosion, thermal cycling, gas exit velocities, chimney spitting, retrofit logistics, or new construction cost savings, we can provide valuable input and direction. Call us to review your situation. We're sure you'll agree the PENNGUARD Block Lining System is the obvious choice.

Specializing in surface protection solutions, ErgonArmor is a division of Ergon Asphalt & Emulsions, Inc., and a subset of Ergon, Inc. Ergon began its legacy of delivering dependable, high-performing products with exceptional service more than 60 years ago. Today, the company encompasses seven leading business segments and global operations to serve customers worldwide.

**[ergonarmor.com](http://ergonarmor.com) | [pennguard.com](http://pennguard.com)**

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