

Allied has provided refractory solutions to the power generation industry for over 35 years. We design products based on equipment, operating environment, fuel, customer preferences, and have experience in a wide range of agro-industries generating power with biomass fuels and mixed fuel streams. We offer products for a range of boilers used in agro-industries including:

- Pin hole
- Fluidized bed
- Travelling grate
- Step Grate
- Dumping grate
- Cyclones
- Simple combustion
- Vibrating Grate

The products below are a selection of the wide range of products commonly utilized in palm waste biomass-fueled boilers in the palm oil industry. Selected products demonstrate exceptional performance in operating conditions in these challenging environments:

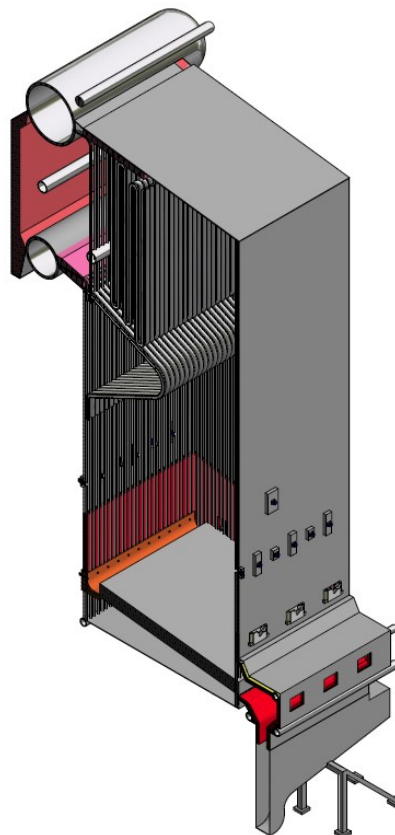
- Strong ability to withstand thermal cycling (thermal shock).
- Resistance to chemical attack, including clinker and slag penetration and accumulation.
- Excellent resistance to abrasion and mechanical abuse.
- Strong physical properties in the range of operating temperatures.

Allied also offers a wide range of complementary products including anchors, insulating materials, equipment, and specialized precast shapes for use against high abrasion and chemical attack including areas in scrubbers, air preheater, and ductwork.

COMBUSTION CHAMBER
TUFF-FLO 47, 62 M, 608
FAST-TURN® 47, 62M
GUNCAST® 28 LI
CASTMAX® 28 S HR, 30 S HR
REZIST ABRADE 50G, 60G, 608G

ASH DISCHARGE NOSE AND HOPPER
TUFF-FLO 47, 608
FAST-TURN® 47
CASTMAX® 28 S HR, 30 S HR
REZIST ABRADE 50G, 60G, 608G
RAM MAX® 45 AS

PROTECTIVE REFRACTORY COATINGS
MATRIKOTE 90 AC
MINRO-Z WASH Z77



ROOF
ECONOCAST® 24, 26, 27
TUFF-FLO 47
FAST-TURN® 47
Precast Shapes

DOORS
TUFF-FLO 47
FAST-TURN® 47
RAM MAX® 45 AS

BURNERS, AIR DUCTS, CHUTES
LCF 798A
ARMORMAX® 70SR

EXPOSED TUBE PROTECTION
ECONOSET® SIC 85
ECONORAM® SIC 75 TR, SIC 85

REPAIRS
QUICK-FIRE® PATCH B, PATCH M
QUICK-FIRE® ONE PATCH B
ECONOCAST® 26TR

Common Refractory Failure Modes

Application	Thermal Shock	Abrasion	Chemical Attack	Mechanical Abuse	Mechanical Stress
Hearth walls—side, back, upper front walls	Severe	Mild	Severe	Severe	Mild
Lower front wall	Severe	Severe	Severe	Mild	Mild
Doors	Severe	Mild	Mild	Mild	Mild
Ash discharge nose and hopper	Severe	Severe	Severe	Severe	Mild
Burners, feeders, air ducts	Severe	Severe	Severe	Mild	Mild
Roof	Mild	Mild	Mild	Mild	Severe

Key: Mild Severe

Innovative Technology Solutions

Allied Mineral Products designs and manufactures a wide range of innovative products to improve performance, installation time, and turnaround in a wide range of scenarios.

Replacing bricks with castable — engineered ceramic solutions and advanced technology to improve performance and decrease maintenance.

We are experts in technology like monolithic refractories that replace brick linings.

Gunning technology — designed for rapid installations and repairs.

Allied offers a wide range of gunning products for boilers and related equipment that maintains excellent physical properties while allowing rapid installation, and in some products, accelerated dry out.

QUICK-FIRE® — designed for fast turn-around and long-lasting repairs.

QUICK-FIRE® is a family of chemically-bonded products designed to adhere to existing refractory, with fast set and dry out, and long shelf life.



About Allied

Manufacturing Capabilities

- 12 production facilities
- 7 Precast shapes facilities
- Flexible manufacturing schedules

Worldwide Sales & Service

- 145+ international sales & service representatives
- Sales activity in more than 130 countries



Global Refractory Solutions

