



FIRESIDE™
COATINGS

The Industry Advantage.

A COST EFFECTIVE MAINTENACE OPTION

Edward Lloyd

President, CEO

Fireside Coatings Corp.

OUR PRODUCTS?

- industrial coatings formulated for specific applications in boilers, fired heaters and other high temperature process equipment.
- Fireside Coatings products are being used world wide as a maintenance option to reduce corrosion and erosion, slagging and scaling, and to promote thermal efficiency.



PRIMARY INDUSTRIES SERVED

- Power generation
- Steel manufacturing
- Pulp and paper
- Petro-chemical



CERAMIC COATING DEVELOPMENT

- Our ceramic coatings were developed based on over 40 years of our practical experience applying maintenance coatings in industrial boilers.
- Successful product development depends on having a good understanding of the equipment and also the operating conditions that affect equipment performance and reliability.



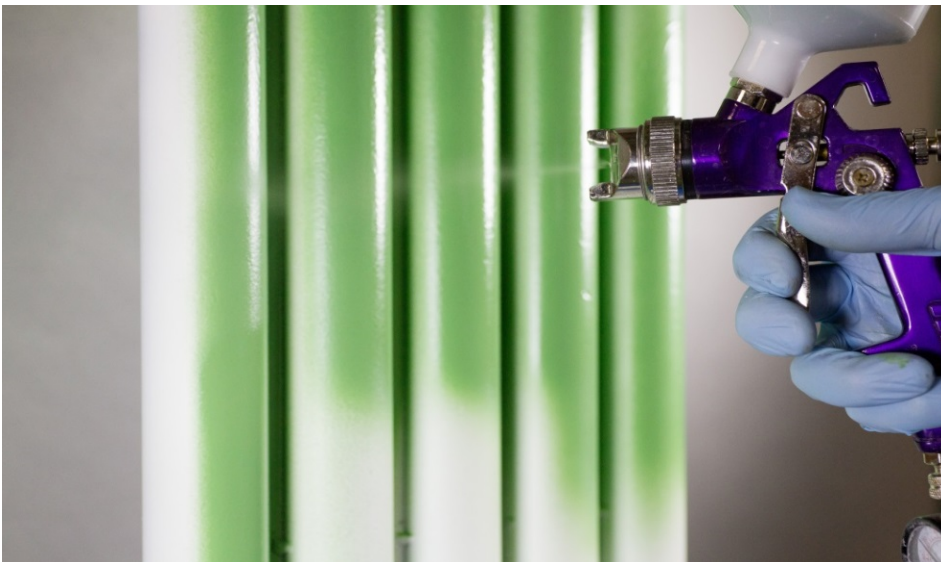
FIRESIDE CERAMIC CHARACTERISTICS

- Non toxic
- Non flammable/water soluble
- Thermal shock resistant
- Corrosion/erosion resistant
- Thermal management coatings
- Non slagging features



APPLICATION REQUIREMENTS

- NACE 1/SSPC-SP5 surface blast .003 (75 micron) profile
- Conventional or Airless spray equipment
- Applied in thin subsequent coats (.002-.003) 50 to 75 microns



XP61 APPLICATION

- Recommended thickness .012-.020 (300-500 microns)
- Coating cures during normal boiler start up



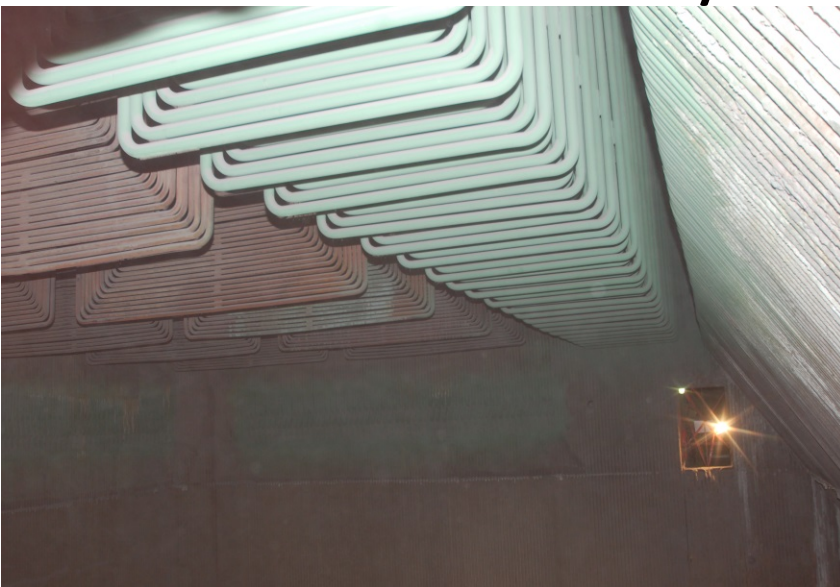
BOILER APPLICATIONS

- PC Utility boilers
- CFB boilers
- BFB boilers
- Process boilers



TIPICAL ISSUES- PC UTILITY

- Waterwall slagging and corrosion
- Superheater and reheater fouling and corrosion
- Economizer erosion/corrosion
- Lower slope erosion
- Nose arch erosion/corrosion



FIRESIDE XP61 BOILER/FURNACE COATING

- Erosion and corrosion resistant. Dense, pin hole free surface prevents the diffusion of carbon, oxygen, sulfur and other gaseous contaminants into the metal tubing. Prevents Coal ash corrosion.



BOILER/FURNACE COATINGS

- XP61 can be formulated for specific applications
- XP61-S (reduces slagging and fouling)



XP61-S-PC BOILER APPLICATIONS

- Slagging condition of reheat pendants in pc boiler



XP61-S PC BOILER APPLICATIONS

- Same reheats after XP61-S application



XP61-S PC BOILER APPLICATIONS

Condition after coated with XP61-S



PC BOILER APPLICATIONS

Water walls coated with XP61 to provide corrosion protection



TYPICAL CFB/BFB ISSUES

- Waterwall erosion (refractory interface, cyclone inlet, corners and membrane)
- Back pass slagging/corrosion
- Roof and division wall erosion
- In bed tube erosion



FIRESIDE XP61 BOILER/FURNACE COATING

- Formulated as XP61-E for erosion resistance



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CFB ECONOMIZER TUBES

- Tube bend erosion = XP61-E



CFB APPLICATION

- XP61 - Water wall erosion/corrosion



PROCESS BOILERS

- Waterwall tube erosion/corrosion
- Superheater fouling and corrosion
- Economizer erosion
- Nose arch and roof erosion/corrosion



PULP AND PAPER RECOVERY BOILERS

- XP61 - Superheater pendants, corrosion, salt cake



RECOVERY BOILERS

- XP61 - Water wall corrosion



RECOVERY BOILERS

- Wall studs



PETRO-CHEMICAL REFINERYS

- Fired heaters



OTHER APPLICATIONS

- XP-61 - Package boiler fire box



REFINERY REF-78

- Ceramic fiber insulation



- Fire Brick



APPLICATIONS

- Fireside TS-511 sealing of stress cracks



APPLICATIONS

- XP-61 - Steel plant BOF hood



 **Optēcoat™**
Verifiable Performance.™





- Optēcoat™ is a dual color sprayed on composite ceramic coating specifically formulated to protect fireside boiler tubing while also acting as a visual inspection aid.
- After a significant period of operation the dual color Optēcoat™ will allow operators and inspectors to visually see any areas of severe erosion or corrosion.

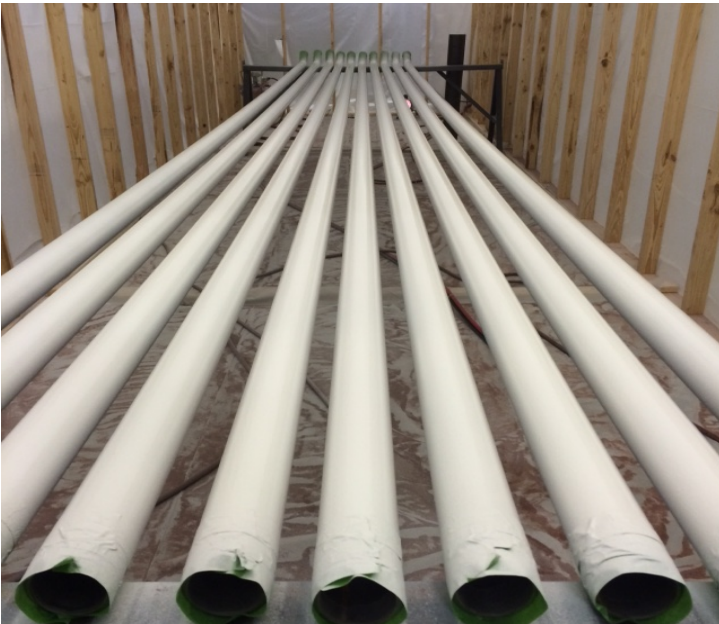


- Optēcoat application- duel color system
EROSION/CORROSION





- Optēcoat application on steam drum tubes
EROSION/CORROSION





- Optēcoat application after one year run in CFB boiler



*Customers worldwide use our ceramic coatings to improve performance and extend the life of equipment.
We look forward to your inquiry.*



firesidecoatings.com

