



Ultra-Z

Low Cristobalite Insulating Ceramic Fiber Coating

"Minimum Downtime, Maximum Heat Savings"

BY: ALLTHERM SERVICES, INC.

Distributed by: Delta Refractories, Inc.

Quick Refractory Repairs

- Quick lasting repairs to hard refractory
- Fills fiber shrinkage gaps
- Seals spalled hard refractory surfaces



Ultra-Z sprayed over IFB

Lower Cold Face Temps

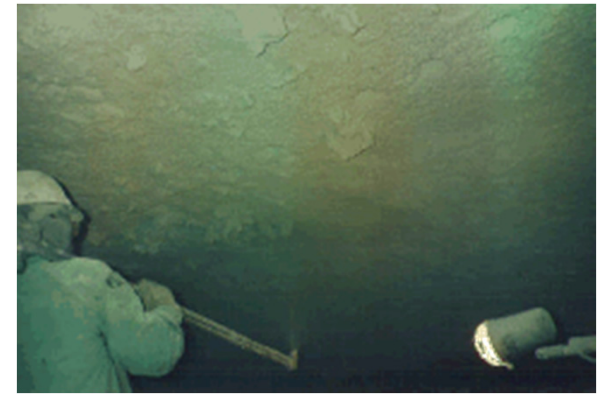


- Lower cold face temperatures as much as 125°F @ 1/2" to 3/4" thick
- Reduction in operating costs



Goes on **HOT**

- Applied to very warm or hot surfaces
- No special dry out schedules
- Reduce down time as much as 30%



Lasts Under Pressure

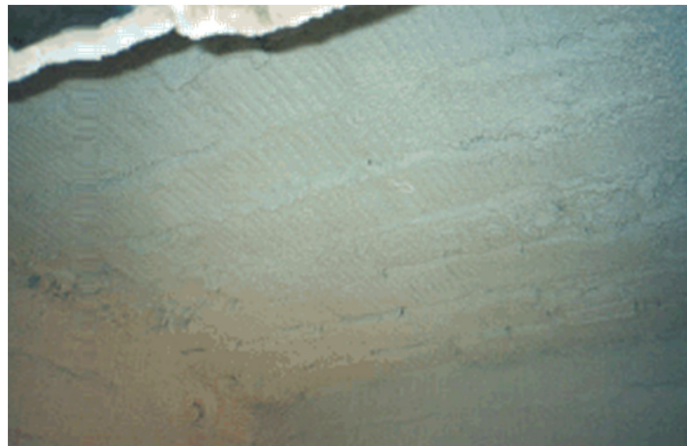


Before Ultra-Z application



- Semi-Porous; High Density insulation
- Enable to give slightly under immense pressures

After Ultra-Z application





Typical Applications

- Petrochemical Process Heaters
- Boilers
- Ladle Pre-heaters
- Slab & Billet Re-heat Furnaces
- Soaking Pit Covers
- Aluminum Melting & Holding Furnaces
- Adheres to steel & stainless steel



Preliminary Technical Data

Ultra-Z HTC Ceramic Spray Coating

A Silica bonded, zirconia, ceramic fiber spray coating

Patent # 5,155,070

Recommended Temperature Range: 350°F - 2750°F / 177°C - 1510°C

Coverage: Estimated per unit, 12.5 FT² @ ½" thick lining

Density: 36 PCF

Color: White

Typical Analysis:

Alumina/Silica Fiber	10% - 25%
ZRSIO ₄	15% - 55%
NA ₂ O (Refined as Colloidal Silica)	25% - 75%
Bonding Material	< 15%
H ₂ O	< 15%