ThermoDyne

Thermodyne Rotary Kiln Insulation Systems

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Simply put, the lower the thermal conductivity of the insulation, the better it will reduce heat loss and the greater the benefit of employing it. Thermal conductivity is influenced by three mechanisms; conductance, convection and radiation. The best insulation will reduce the effects of all three mechanisms at the application temperature. In addition to lowering heat loss through the refractory lining, an insulation that is low in thermal conductivity will reduce the thermal gradient (the difference in the hot face temperature minus the cold face temperature) of the refractory lining, resulting in a more uniform temperature distribution, which, in turn, reduces the refractory's propensity to thermal shock.

ThermoDyne

Cage code 3D8W8

3709 Cassopolis St., Elkhart, IN 46514

Toll Free: 866.741.5458, 574.522.3606, Fax: 574.293.0047

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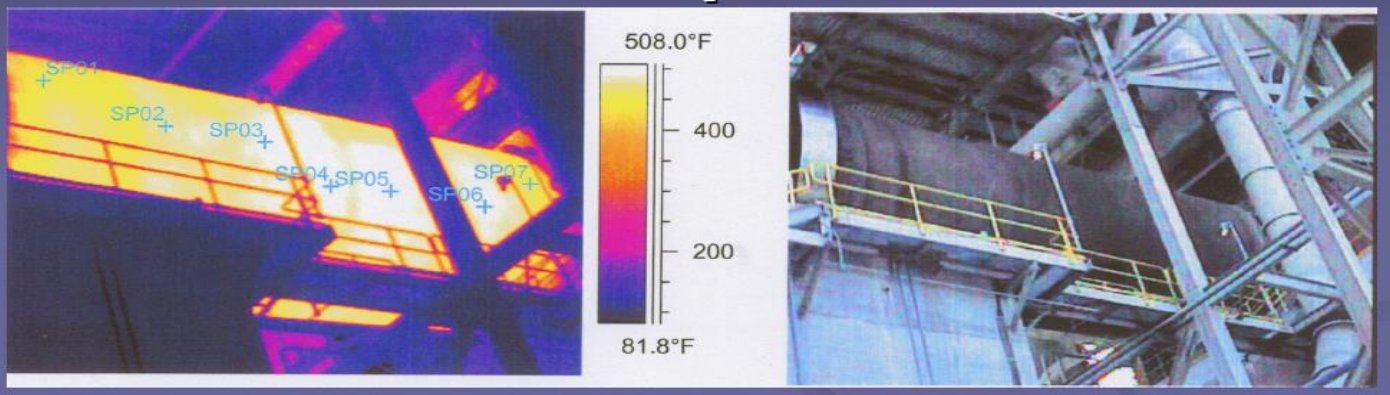
Thermodyne
Rotary Kiln Application

ACTUAL Reductions in Shell Temperatures



THERMAX KW Shapes over Drive Gear and #3 Tire

9" KRUZITE-70 THERMAX KW Blocks with Insulating Pads
Avg Shell Temp = 450°F (232°C)

9" KRUZITE-70 RKB's Avg Shell Temp = 501°F (261°C)

Δ Avg Shell Temp = 51°F (29°C)

Thermal differences: The average thermal differences of using the Dynaguard material when installed at a thickness of .15" thick and a density of 18 pcf is right around 350 BTUs per hour per square foot. A typical unit has around 20,000 square feet of surface area.





Aerospace/Defense
Engine nacelles
Auxiliary power units
Fire walls
Struts and cowlings

Industrial
Power Plants
Incinerators
Molten metal ladle backup
Glass feeder bowls

Commercial
Exhaust systems
Furnaces
Ovens
Night storage heaters

Military
Field Data Delivery
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Government
Evidence Electronic
Classified Data

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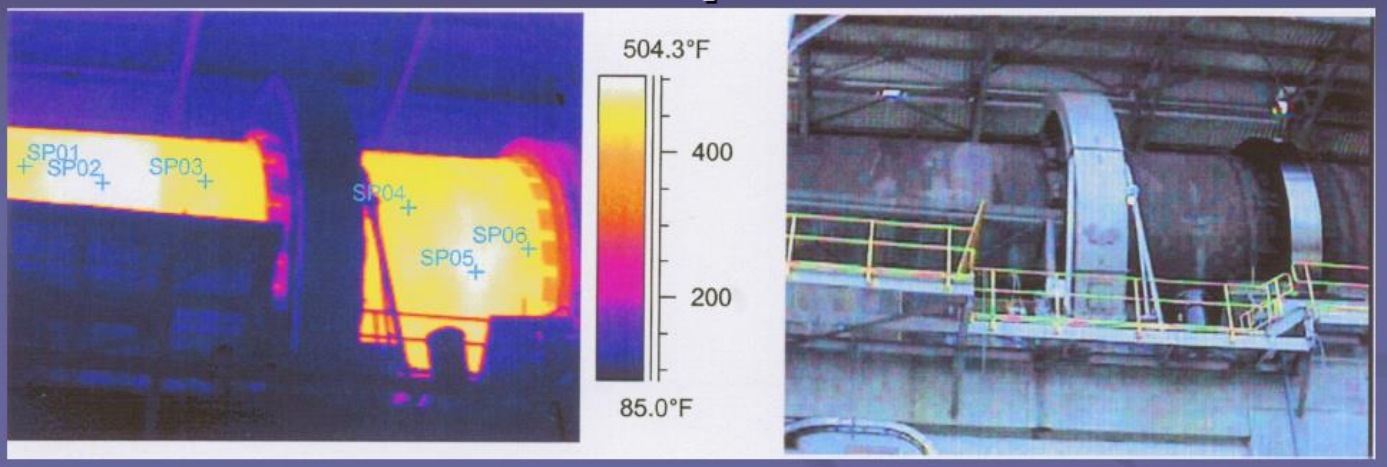

THERMAX KW Shapes over Drive Gear and #3 Tire

9" KRUZITE-70 RKB's Avg Shell Temp = 505°F (263°C)

9" KRUZITE-70 THERMAX KW Blocks with Insulating Pads
Avg Shell Temp = 463°F (239°C)

Δ Avg Shell Temp = 42°F (24°C)





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