

Kiln Shell Corrosion Coatings

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Abstract - The internal corrosion of the rotary kiln shell of cement plants has become a more frequent and serious problem. With the increase in use of alternative fuels, there has been an increase in chloride compounds in the combustion gases. These chlorides, in addition to the sulfur oxides normally present, produce an acidic hot condensate on the kiln shell under the refractory. The effect of this type of corrosion is not uniform, usually it is worse in the last third of the shell length. There is a new ceramic protective coating that can be applied on the kiln shell, before installing the refractory bricks. This material dries at room temperature and during the start of the kiln cures at high temperature, producing an abrasion and chemical resistant layer that prevents the kin shell corrosion.