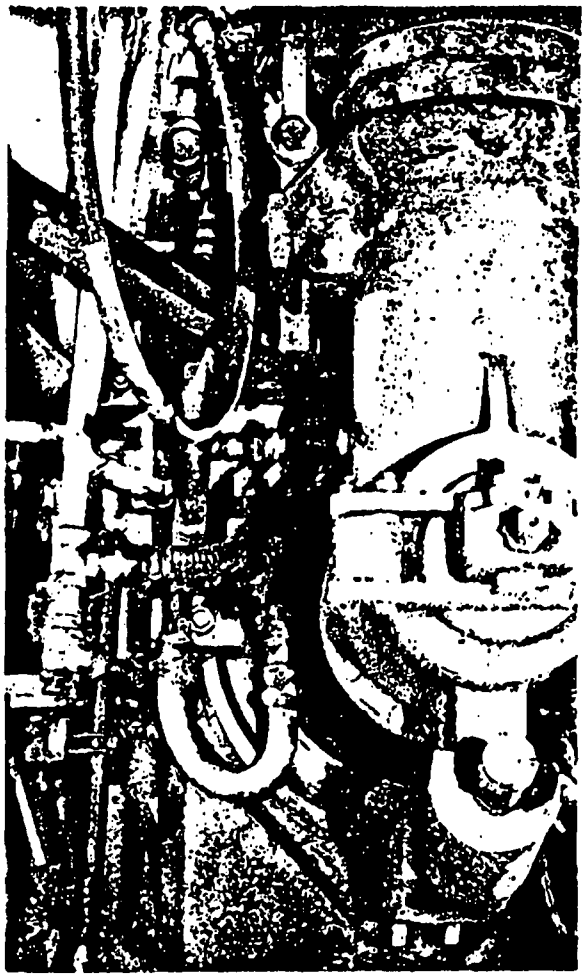
REFRASIL®
Refractory silica in textile form
INSULATION

APPLICATION BULLETIN R-4

Materials Division of HITCO, a subsidiary of Armco Steel Corporation

REFRASIL®-insulated tuyere hose cuts blast furnace delay time



At the Ashland Works of Armco Steel, cooling water to relieve heat stresses and extend life of blast furnace tuyeres flows through 1¼-inch flexible hoses. For hoses on tuyeres located over the iron and slag notches, special insulating protection is a must because of extreme heat and actual splashing of molten metal and slag.

Hose protected with REFRASIL insulation promises 6-months life in service above the slag notch. Because of conditions, maintenance people had tried carbon steel pipe instead of hoses. Pipe was replaced when tuyeres were changed. However, at installation, tuyere and the solid pipe had to be perfectly aligned —an exacting job that stretched furnace delay time to 2 hours at over $850 per delay hour. In addition, this required a maintenance team at $25.00 per hour.

REFRASIL-insulated hose—installed by one man in 15 minutes

Flexible hose can be installed in 15 minutes. Even after 6-months' service, the REFRASIL-insulated hose is covered with splashes of slag, but hasn't leaked.

REFRASIL textiles do more

REFRASIL insulation is a refractory textile prepared by chemically converting glass textiles. It continues to serve at temperatures where glass, asbestos and many other textiles fail. It contains no binders or finishes, but can be provided with various coatings for improved abrasion resistance and ease of installation.

This outstanding thermal insulation will operate continuously at temperatures to 1800 F with little or no change in properties and does not melt or vaporize until temperatures exceed 3100 F. The same benefits that make it ideal for tuyere hose insulation make it a good choice in many other applications where heat causes expensive problems.

For information, write HITCO, 1600 W. 135th St., Gardena, California 90249. Telephone (213) 321-8080.

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Armco and the Armco Triangle ® trademarks of Armco Steel Corporation, Middletown, Ohio
REFRASIL ® trademark of HITCO.

LHT/MD-674 2.5M CP 2-75

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