



Postbus 44 - 4510 AA Breskens

Deltahoek 34 - 4511 PA Breskens

[www.cressbv.nl](http://www.cressbv.nl)

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# BATCH REHEAT FURNACE

## APPLICATION INFORMATION



### FURNACE INFORMATION

Furnace type: Batch Reheat Furnace (Owner has over 80 reheat furnaces in its Plants)

Fuel type: natural gas

### APPLICATION INFORMATION

The Plant was able to measure pre and post coating data by using the exact same load and the exact same charging temperature.

## LOCATION

FRISA Steel

## APPLICATION

Batch Reheat Furnace

## SUBSTRATE

Ceramic Fiber and Refractory Brick

# RESULTS

### EMISSHIELD BENEFITS

By applying Emisshield to the hot face of the refractory lining, the owner was able to obtain a 10-13% energy savings. Additionally, a production increase of 14% was observed concurrently with reduced energy. The combined overall furnace energy savings and production increase was approximately 20%. The pay back for these Emisshield furnace applications was less than 1 month.



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## DATA BEFORE APPLICATION

Total time to heat load:  
5hrs and 8mins

Total gas consumption:  
146m3

### Grafica de prueba inicial

Hora inicial: 11:30 @ 955 grados , 499,076 M3  
Hora Final: 15:00 @ 955 grados, 499,151 M3  
Hora Final: 16:38 @ 1200 grados, 499,222 M3

Tiempo total hasta llegar a tolerancia: 5:08 hrs  
Total de gas consumido: 146 m3



## DATA AFTER APPLICATION

Total time to heat load:  
4hrs and 25mins

Total gas consumption:  
129m3

### Grafica de prueba Final

Hora inicial: 10:33 @ 955 grados , 507,795 M3  
Hora Final: 13:51 @ 955 grados, 507,869 M3  
Hora Final: 14:58 @ 1200 grados, 507,924 M3  
Agregando 43 min de dif vs 1er prueba, 507,933 M3  
15:41

Tiempo total hasta llegar a tolerancia: 4:25 hrs  
Total de gas consumido: 129 m3

Consumo de los siguientes 43 minutos: 9 m3  
Consumo igualando el tiempo de primera prueba: 138 m3

Podríamos decir que el consumo fue de un 5 a 13% menor ya con el recubrimiento.

