

Performance optimization + process reliability + energy efficiency
OPTIMIZED INSULATION



SUCCESS STORY!

Chamber furnace
design variant

The task: Thermal refurbishment of a chamber furnace line

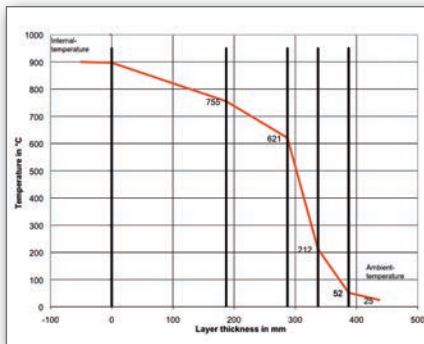
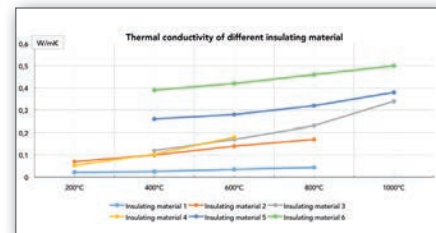
The customer's problem: Multiple worn insulation panels on several chamber furnaces.

Procedure:

- **Precise analysis** of customer requirements by our experts
- **Structural check** and plant analysis using a **thermal imaging camera**
- **Concept with optimization measures**, well beyond simply replacing the furnace insulation

The ambitious goal: 30% decrease in losses

- Definition of the **objective by the customer: 30% decrease in heat loss!**
- The first step: **Analysis of material selection**
- **Selection and customization of the perfect material combination** for the customer by using a **heat transfer calculation** that is based on known process parameters



- Determination of **measures** to reduce heat losses, e.g.
 - **Reduce thermal bridges**
 - **Install insulation in a targeted manner**
 - **Insulation of additional fittings**
- After optimization by engineering department
 - **Removal of the old insulation**
 - **Installation of the new, optimized insulation by our specialists**
- The last step: **Validation of improvements** through thermography and by measuring the furnace gas consumption
- **35% decrease in heat loss** for this successful project – **5% above the target!**

Your advantages

- Customized solutions from a single source
- Use of high-quality materials in the best possible combinations
- Increased system availability

Your reliable partner

- Competent engineering partner
- Reliable supplier of components
- High level of expertise in plant modernization
- Experienced market leader both for AICHELIN plants and third party plants
- Decades of expertise in insulating furnaces for thermochemical heat treatment

AICHELIN
Service

AICHELIN Service GmbH
Schultheiß-Köhle-Straße 7
D – 71636 Ludwigsburg
Tel.: +49 (7141) 6437-0
Fax: +49 (7141) 6437-100
E-Mail: service.de@aichelin.com

AICHELIN
Heat Treatment Systems

AICHELIN Ges.m.b.H.
Fabriksgasse 3
A – 2340 Mödling
Tel.: +43 (2236) 23646-0
Fax: +43 (2236) 22229
E-Mail: service.at@aichelin.com

www.aichelin-service.de