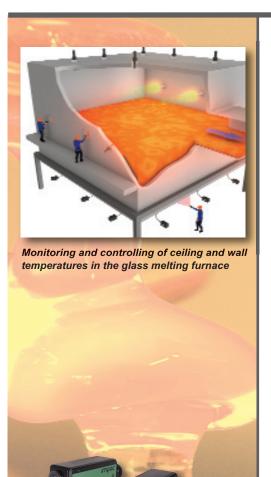


# **Application Note**

## **Monitoring of Insulation of Glass Melting Furnaces**



#### The Task

In the **glass production process**, various raw materials are molten and homogenized in a melting furnace at temperatures up to 1600°C. An **effective insulation of the melting furnace** is indispensable for this. However, the refractory materials used for lining the furnaces suffer heavy wear and stresses caused by the continuous filling and emptying of molten glass.

In order to **prevent instability** and **breakthroughs** due to damaged insulation, the **front wall and ceiling temperatures** in glass melting furnaces require **constant monitoring and checking**. This enables users to detect weak points in the melting furnaces early on and to **optimize the melting furnace uptime**, and at the same time improves operational reliability.

#### **Our Solution**

**IMPAC Portable Pyrometer Series 8** *pro* – High quality pyrometers for mobile monitoring and inspection with built-in measured data storage

- Very robust aluminum die-cast housing for use in rough environments
- Focusable precision optics for optimum adjustment even with very small spot sizes
- Large data storage capacity for subsequent analysis of measured data
- Integrated maximum value storage to determine the peak value in a series of measurements
- Fully digital signal processing, resulting in wider temperature ranges as well as higher accuracy

The USB interface permits the use of the optional analyzing **software** *PortaWin*. With this software the measured temperature data can be displayed and processed on a PC **in real time** or used for **subsequent analysis**.

### **Your Benefits**

- ✓ Highly accurate and very fast temperature measurements
- ✓ Flexible monitoring of critical areas to avoid instability of ceiling and dangerous breakthroughs e. g. to the walls
- Avoidance of costly loss production by optimal temperature monitoring of critical furnace areas
- ✓ Large data storage capacity for complete documentation of all inspection visits
- Optimization of melting furnace uptime and improvement of operational reliability



Analysing Software PortaWin

for portable IMPAC Pyrometers

Portable Pyrometer Series 8 pro

For international contact information, visit advancedenergy.com.

sales.support@aei.com +1 970 221 0108 PRECISION | POWER | PERFORMANCE

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2019 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy® and AE® are U.S. trademarks of Advanced Energy Industries, Inc.