

December 2015

Press Release

Kanthal APMTM/Kanthal APMTTM materials continue to impress customers with significant increases in durability, lifetime and reduction in energy use.

Atlantic Heat Treating Ltd. contacted Sandvik and raised concerns on relatively short lifetime of existing SER radiant tubes in their gas fired Sunbeam Furnace which was failing after ~18 months of service.

Sandvik provided replacement tubes manufactured using Kanthal APM extruded material that was sized to work with the existing burner design and to be a direct replacement for the previous stainless alloy tubes. Atlantic Heat Treating installed the replacement Kanthal APM radiant tubes in April 2010.

"The burners that are using the Kanthal APM tubes are the best I have ever seen. The tubes for my SER burners in the Sunbeam furnace were ordered in January 2010 and installed in April of 2010, so we are looking at over 5 years steady operation, vs. something like 18 months with the previous stainless steel tubes. I bought another furnace that is the same as the one we are running now. When we get it installed I will be looking to use the Kanthal APM tubes", says Jon Matthews, owner of Atlantic Heat Treating Ltd.

The main benefits from the replacement with Kanthal APM tubes at Atlantic Heat Treating Ltd are:

- Durability: The tubes have been operating for more than 5 years with no issues with respect to surface corrosion or deformation of the tube wall. Physical appearance of the tubes indicates a potential for additional years of service.
- Reduced maintenance: Due to extended lifetime, maintenance costs and furnace downtime have been significantly reduced.
- Additional benefit realized through an increased throughput of the furnace.



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About Kanthal APM and Kanthal APMT alloys

Kanthal APM is an iron-chromium-aluminium (FeCrAl) powder metallurgical dispersion strengthened alloy used in a wide range of resistance and high-temperature application.

Kanthal APMT is an advanced powder metallurgical, dispersion strengthened, ferritic iron-chromium-aluminium alloy (FeCrAlMo alloy). Both allys are recommended for continuous use up to 1250°C (2280°F) in oxidizing and reducing environments. Kanthal APMT is a further development of Kanthal APM, designed for especially demanding applications.

Both alloys forms a protective and non-scaling Al2O3 surface oxide when exposed to high temperature, which gives good protection in most furnace and combustion environments, i.e. oxidizing, sulphidizing and carburizing, as well as against attacks from deposits of coke, ash, etc. The combination of excellent oxidation properties and form stability makes the alloys unique.

For more information contact:

Jon Hartmayer Sales Area Manager, NAFTA Sandvik Materials Technology Product Area Strip, Wire and Heating Technology Tel cell phone: +1 (209) 728-7971 jon.hartmayer@sandvik.com www.kanthal.com

Krister Wickman Technical Marketing Manager Sandvik Materials Technology Product Area Strip, Wire and Heating Technology Tel: +46 220-217 40 krister.wickman@sandvik.com www.kanthal.com

Image 3396.jpg and Image 3397.jpg Image text to be placed above the photo:

The photos below were taken by the customer and show the orientation and condition of the APM tubes that have been in operation in the furnace for more than 5 years with no signs of material degradation.

Sandvik Materials Technology Sandvik Heating Technology AB, Box 502, 734 27 Hallstahammar, Sweden Phone +46 220 210 00, Fax +46 220 211 66 www.kanthal.com, www.smt.sandvik.com