

## Kevlar technology saves the day for aluminium foil manufacturer.

### Problem

Due to the nature of aluminium foil production, this company was measuring extreme temperatures in a metal foundry. Whilst resistant to the extreme temperatures, the specialist high temperature thermocouple cable being used suffered mechanical damage from vibration and repeated mechanical movements.

This resulted in a plethora of problems for the organisation including: prolonged downtime, lost throughput, higher scrap levels, poor delivery performance and longer lead times.

### Solution

Heatsense used its extensive knowledge of high-tech fibre manufacturers to identify a flexible and robust solution. A solution that included high wear-resistant, high temperature, cost-effective material – namely, Special Grade Kevlar (commonly used in bullet proof and ballistic vests). Using this new material, Heatsense braided the Kevlar around Type K Thermocouple conductors.

Prototypes were manufactured, tested and sent to the customer for feedback. Upon receiving the new Kevlar Thermocouple conductors, the customer reported new cable now exceeded the original technical design specifications and lasted over four times longer than the original version.

