



Critical Rail Temperature Monitoring on the West Coast Mainline.

Case Study

The West Coast Main Line (WCML) connects the major cities of London and Glasgow, along with Birmingham, Liverpool, Manchester, and Edinburgh, and is therefore, one of the most important railway routes corridors in the United Kingdom.

PRODUCTS

DYWIDAG Smart Temp Automated
Track Monitoring

LOCATION

United Kingdom

TIMELINE

01-2021 - 12-2021

SCOPE

Supply
Installation

OWNER

Network Rail

CONTRACTOR

DYWIDAG

Context

Like all rail, the WCML is subject to constant monitoring, as part of its programme of regular maintenance to ensure service continuity. Monitoring the temperature of the rail during warmer months is of paramount importance to ensure the rail doesn't buckle and fail when ambient temperatures rise.

Solution

Historically, the understanding of rail temperatures has been managed manually with operatives placed on site to take live readings throughout high-risk weather forecasts. Through DYWIDAG's close relationship with Network Rail, they developed the DYWIDAG SmartTemp which is installed around the web of the rail and allows for remote, alerting, and trending to be viewed via a website log in page.

"What makes a difference to us is we [NR] now have the ability to log in and view live rail temps, which allows us to only send staff out in hot weather when absolutely necessary and not before. We can change the trigger temperatures in a simple phone call or email to suit what we need." – Stuart Gordon of Network Rail

Network Rail's West Coast maintenance team is a key user of DYWIDAG's SmartTemp and uses its sensors and platform daily to control factors such as speed and usage of rail in high risk these areas. At any given time, up to 10 Smart Temps' covering their section of the NW&C line will be in operation by the local maintenance team, who often will have to rapidly deploy the sensors as required. Being able to understand the temperatures of the rail, in real-time, therefore is critical to the safe running of the track and monitoring this is an excellent management and safety tool.

Not only does this provide a reduced risk of having operatives on live track but provides remote readings to the track team to give a more comprehensive view of track conditions.

