## New Ticket Hall at King Cross & St Pancras

### London, England

#### **CONTRACTOR:**

• DMC Rail Ltd - Tilbury Essex (United Kingdom)

#### **OTHER ARDEX PRODUCTS:**

- ARDEX A 35 Rapid Setting and Drying Cement for Floor Screeds
- ARDEX S 21 Rapid Hardening Floor Tile Bedding Mortar
- ARDEX-FLEX FL Rapid Setting & Hardening Flexible Grout

#### CHALLENGES:

- Smooth floor surface to receive large format tiles
- Fast turnaround with minimal downtime
- Very heavy traffic area
- 4.300 m<sup>2</sup> (46.286 ft<sup>2</sup>)
- Underground (below grade)

#### PROBLEM:

As part of London's investment program, the Department for Transport (DfT) funded the DMC Rail for a new ticket hall to be built at King Cross & St Pancras. Originally opening in 1852, King Cross & St Pancras is where six underground lines meet and is used to access several of the UK's most important destinations. With that in mind, the new ticket hall needed to be completed as fast as possible to minimize any loss of function. The new ticket hall also required a flat durable surface that would handle a large amount of foot traffic. Even though King Cross & St Pancras operate separately, travelers use the two stations as a single complex for interchange purposes.

# Northern line Piccadilly line Vouse

#### **SOLUTION:**

Working alongside DMC Rail, ARDEX UK recommended an 85mm (3.34 inch) layer of ARDEX A 35 rapid drying screed for its fast-track performance, as well as for its ease-of-use and cost effectiveness. ARDEX A 35 is a rapid drying screed that hardens fast enough to allow foot traffic in only three hours and dries adequately to receive floor coverings in just 24 hours at any thickness. Most competitors' products take as long as 28 days before a project can move forward and reach a similar compressive and tensile strength. The fast-drying properties allowed DMC Rail to move forward with placing tile much faster than scheduled.

The project specified a large format tile, so ARDEX UK recommended ARDEX S 21 mortar bed. ARDEX S 21 was selected not only because it is designed to use with large format tile, but also because of its fast hardening properties and ease of use. ARDEX S 21 is a pourable tile bedding mortar that can be walked on and grouted in just three hours, again saving valuable time, money and labor costs associated with troweling a large area.

Finally, DMC Rail needed a grouting option that allowed for wide tile joints. Because of its flexibility, water repellency, dirt resistance, ease of use and a rapid drying time, ARDEX-FLEX FL rapid setting flexible tile grout was recommended and used to grout the tile. ARDEX-FLEX FL has an initial set of one hour, a final set of 75 minutes and a final hardness of 50 N/mm² (approximately 7,250 psi). ARDEX-FLEX FL is considered a favored choice by tile contractors in the UK because of its versatility, features and many color options.

Dave McCartney of DMC Rail Ltd stated, "Teaming up with ARDEX to complete this prestigious project, not only assured proven product performance, but we also benefited from their outstanding technical support which was consistently excellent throughout the project."

