

# Single-Ply Roofing

## O<sub>2</sub> Headquarters Building, Slough



### Background

Leading mobile phone provider O2 needed a complete overhaul of the roof of one of its major buildings, Building 3 – the main hub for O2 in Western Europe, and currently home to more than 4,000 staff.

The existing roof was installed circa 1989 and comprised mechanically fastened insulation over a loose-laid polyethylene vcl with the pvc membrane fully adhered to the insulation. It was leaking significantly which was due in part to the fact that the actual roof had been left covered in disused materials, waste plant, insulation and debris. Imperfections in the original detailing and damage due to all the debris and by subsequent modifications to the original installation provided ample opportunity for water ingress into the building.

### Challenge

Work commenced in February 2010, and the first step was clearing the roof and ensuring it was leak-free by patching up the existing defective single-ply membrane as the roof was cleared. This allowed the building’s occupants to continue working while the repairs were carried out, including the installation of various new plant, put in place and waterproofed during the re-roofing process.

As the existing insulation was mechanically fastened any water in the system would gravitate to troughs in the decking, and so dewatering would naturally occur as a result of any penetrations in the troughs of the existing deck and liaison between McCormick Flat Roofing and the main contractor were critical.

### Solution

The existing system was in reasonable condition to accommodate an overlay. A specification of 13mm Thermazone Recovery board mechanically fastened to the main roof deck was utilised and the new waterproofing system of Sure-Weld Fleeceback TPO.

Exhaustive roof surveys were carried out and lengthy site meetings took place in order to provide the detailed design input that was required by both the architect and client. Bespoke roofing details were prepared jointly by Icopal and McCormick Flat Roofing Ltd, and special fixings and recovery boards were specified in order to accommodate an overlay of the existing failing single ply roof, minimising disruption to the internal fit-out work.

#### Project:

O<sub>2</sub> Building 3 (Main Campus), Slough

#### Area:

3500 m<sup>2</sup>

#### Completion Date:

April 2011

#### System:

Sure-Weld Fleeceback TPO

#### Client:

Telefónica UK Ltd

#### Main Contractor:

ISG InteriorExterior plc

#### Contractor:

McCormick Flat Roofing Ltd, Hornchurch