

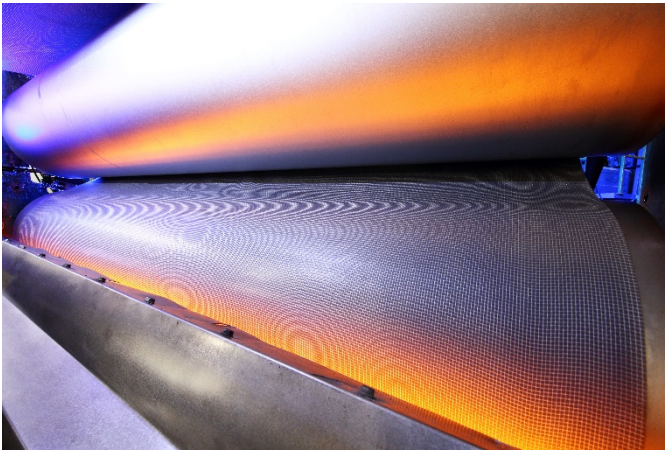
## Infrared System ensures Polymer-Polymer Bonding in Roofing Manufacture

Fast response medium wave emitters and Carbon Infrared emitters from Heraeus Noblelight are helping IKO PLC to achieve excellent bonding between layers of polymer material during the continuous manufacture of roofing systems at its Clay Cross production plant.

IKO is well-established as the UK market leader in the design, manufacture and installation of roofing and waterproofing systems. A major product at Clay Cross is a range of single and multi-layered systems for flat roofing. Here, a first layer polymer material is joined with a textile base scrim and this assembly can then be completed with the addition of one or more further layers of polymer. The addition of additional polymer layers is carried out in a continuous process where the web of scrim-backed polymer, at speeds up to 10 m/min, is brought into contact with a further polymer web on a drum. The surface of the scrim-backed polymer is heated to allow fusion to take place.

The heating is carried out by an infrared system contained in a specially constructed reflector, which follows the curvature of the drum to ensure homogenous heat transfer. The infrared system uses six, 11kW fast response medium wave (FRMW) emitters and two 11 kW Carbon Infrared (CIR) emitters. The CIR emitters ensure that all moisture is driven from the polymer while the shorter wavelength of the FRMW emitters is more penetrative.

The new system, designed and built by Heraeus, replaces a previous IR system, supplied by an Italian company, which had proved unreliable in operation. However, as Andrew McArthur, production engineer at IKO, points out, "The retro-fit of the new system proved quite easy, even though we had little space for manoeuvre. And we are now obtaining more reliable and better quality polymer adhesion at this important stage of production."



### Features

- Bonding between layers of polymer material during the manufacture of roofing systems
- Surface of scrim-backed polymer is heated to allow fusion to take place
- Increase in reliability and quality

### Technical Data

- IR system consists of six 11kW FRMW emitters and two 11kW Carbon Infrared emitters
- CIR emitters ensure that moisture is driven away
- FRMW emitters are more penetrative

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