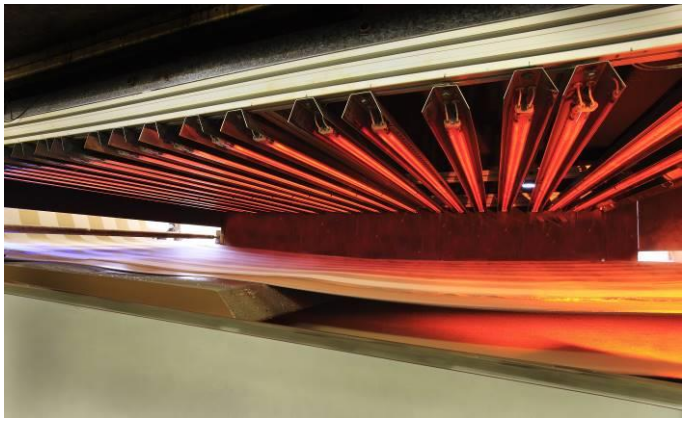
# Infrared Heat Increases Productivity of Flameproof Textiles

Forgotten candles or a short circuit in the toaster – if a fire starts at home it should not get out of control. Curtains and home textiles should not contribute to the spreading of a fire and therefore they have to be equipped with flame-retardant properties. Essex Flameproofing is a long-established company which works with designers and specifiers, fabric manufacturers, major retailers and upholsterers to impart fire-retarding properties to furniture and fittings. This is achieved by treating the fabric of the upholstery or curtains with flame-retardant chemicals to comply with British and foreign standards and flame retarding regulations. The application of the relevant chemicals/coatings is a wet process and drying is, necessarily, an important production stage.

Upholstery is made fire-resistant by spraying the back of the upholstery cloth with a latex flame-retardant coating, which must then be dried. Previously this was achieved by heating the coated upholstery web with a long wave infrared system. However, to meet increasing demand for the company's expertise, it was decided to investigate ways of speeding up the drying process.

As a result, a new Noblelight medium wave infrared system was retrofitted. Now coated upholstery fabric can be dried in a single pass whereas three passes were often required with the previous system. This is partly due to the efficiency of medium wave infrared in water removal, as radiation at medium wave frequency is readily absorbed by water molecules and the energy is rapidly converted into heat.

The new system also finds further employment when it is used to provide extra capacity to dry treated curtains. Curtains are made fire-retardant by spraying them with a salt-based solution, which soaks into the fibres. When curtains come Scotch guarded, or when fabrics have low permeability, the uptake of the solution needs to be assisted by passing the wetted curtain through nip rollers. Normally, curtains are dried on their own line, but when there is capacity on the new Excelitas Noblelight system, they are passed through for drying, again at twice to three times the speed.



## Features

- Drying of latex flame-retardant coating on upholstery cloth
- Drying of fire-retardant solution on curtains
- Medium wave Infrared heaters dry three times faster than previous long wave

## Technical Data

- 21 medium wave Infrared heaters, with 4.5kWeach in an aluminum framework
- arranged in seven banks of three emitters
- switched on and off to match the heating profile of the product to be dried

**Excelitas Noblelight**
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