. **Heraeus Gas Catalytic Infra-Red Heaters Now ATEX Approved**

Can Be Used In Hazardous Environments

A range of the gas catalytic, infra-red heaters from Heraeus Nobleight has now been certified to ATEX 2 2G standard. This makes them suitable for applications in above-ground areas which may contain explosive atmospheres caused by gases, vapours mists or air/dust mixtures. The heaters are designed for fitting in infra-red ovens, which are particularly suitable for powder coating and applications ranging from food drying, thermo forming and textiles drying to leather curing and curing coatings on heat-sensitive substrates, such as MDF.

Gas catalytic infra-red ovens are available in various sizes and can operate on natural gas or propane. They are flameless, as they rely on initially heating a platinum catalyst ceramic composite heater panel. Once the catalyst has reached a given temperature, the gas switched on and flows evenly into the back of the panel, where it intermingles with the hot platinum catalyst. This initiates a chemical reaction, which produces carbon dioxide, water vapour and infra-red radiation in the long to low medium wave band of the spectrum. Once the catalytic reaction is established, approximately five minutes after the gas is turned on, the electrical pre-heat is switched off and the reaction is maintained, without flame, until the gas is shut off, without any deterioration of the platinum catalyst. The surface temperature of the heater depends upon the gas flow and this is controlled by a precise gas pulse system (GPS).

As such, gas catalytic infra-red ovens are particularly suitable for the gelling of powder coatings. This has traditionally been carried out by convection ovens, which are energy inefficient and require a large amount of floor space. They can also be expensive to run and, because of their long start-up time, they cannot be quickly shut down when there are breaks in production. In addition they produce noxious gases and are not particularly suited to heating parts with sensitive substrates. Gas Catalytic heating suffers from none of these drawbacks and offers a very short return on investment. They are also highly controllable and can be used for smaller batch sizes and can be installed as booster ovens to upgrade existing production lines in a wide range of industries

A gas catalytic oven has been installed at Heraeus's Applications Centre in Neston, Wirral and is available to potential customers who wish to carry out trials using this technology. Heraeus specialises in the production and application of high quality energy sources covering the electro-magnetic spectrum from ultraviolet to infra-red. It has over 40 years experience in infra-red technology and offers the expertise, products and systems to provide efficient and effective solutions to drying, heating and curing problems throughout industry. Gas catalytic infra-red entered the Heraeus portfolio when Vulcan Catalytic Systems Ltd was acquired last year

Reader Inquiries

Ian Bartley

Heraeus Noblelight Ltd

Tel: 0151 353 2710

Fax: 0151 353 2719

E-mail: ian.bartley@heraeus.com

The Gas Catalytic IR oven at Heraeus