By installing a fast response, medium wave infrared system from Heraeus Noblelight, Bentley Motors is ensuring that the hoods of its new Continental GT Convertible models are both free of creases and pre-aged to provide better durability when they are delivered to customers.

The Bentley Continental GTC is the latest addition to the company’s GT range. It has been engineered from the start as a convertible and as such, every component has been crafted for purpose and this includes the hood. This is fitted on the new production line at Crewe and has been designed to allow fast deployment at driving speeds of up to 20 mph. Naturally, an important stage of the finishing process is the decreasing and aging of the GTC’s roof canopy. This is made from a high quality fabric, whose manufacturers recommend that it baked at around 80ºC for some minutes when fitted. This process is carried out to remove any creases which may have developed during fitting and also to “pre-age” the fabric so that it does not suffer from fade when exposed to sunlight. Naturally, it is important that any heating is not detrimental to any other part of the car bodywork and that it is carried out in a time which fits in with required production line speeds.

Bentley elected to use infrared for this very important task and contacted Heraeus Noblelight. As a result, a 42kW fast response medium wave system was installed and this features 14 independent zones to ensure accurate and reliable control. Thirty six, 1kW emitters form the top section of the system and these are split into 12 controllable zones. There are 3 fast response emitters in each of the side zones and these, too, offer full PID control. All emitters are fitted with gold reflectors to ensure maximum efficiency.

In operation, the cars are conveyed into the heating section at normal line speed where the emitters rapidly raise the hood to 80ºC and then hold it at temperature for around six minutes. The temperature profile within the heating section was established during the system’s on-site commissioning.

Since installation, the Heraeus system has performed perfectly to specification to remove any fabric creases from the hood. As Andrew Maddock, production engineer at Bentley, comments, “We have found the infra-red system clean, reliable and easy to operate and control. Moreover, compared with alternative technologies, it saves energy and space.”

**Features**
- fast response medium wave heaters with short response times
- contact free heat
- crease removal and pre-aging of the hood

**Technical Data**
- 42kW IR system
- 14 independent zones
- full PID control