

# Heraeus

## The Carbon Twin – a new CIR<sup>®</sup> Carbon Infrared Emitter

### Infrared Heating Technology

Infrared emitters transmit large amounts of energy in a short time and at high efficiency. The wavelength of the infrared radiation has a crucial effect on the effectiveness of the heating process. Infrared emitters, which are optimally matched to the materials to be heated, provide energy savings of up to 50%. Heraeus Noblelight infrared heating technology offers significant advantages: heat exactly where it is needed, with the optimum wavelength for the product and in line with the process.

### The Combined Advantages

The new generation of proven Heraeus twin tube emitters is the Carbon Twin. Its maximum power density is twice that of conventional twin tube emitters, perfect for

- fast drying of waterbased inks and lacquers,
- economical processing of plastics and glass.

Twin tube carbon emitters can be easily retrofitted into existing infrared systems. They replace the existing emitters, improve the system and decrease the running costs.

### The Carbon TWIN – a new CIR Carbon Infrared Emitter

In the medium wave range, Heraeus offers tailor-made twin tube emitters or carbon round tube emitters of especially high efficiency. New is the unique combination of both of these technologies, which allows important synergy effects.

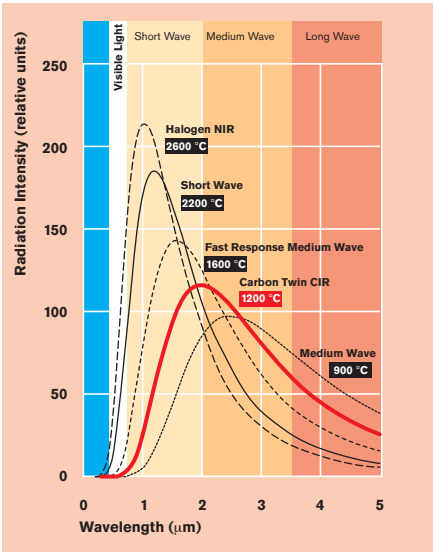
Common to both types of emitters is the medium wave spectrum. Many materials absorb infrared especially in this region of the spectrum. The use of infrared emitters therefore contributes to the accelerated drying of water and other solvents and to economical processing of plastics and glass.

The proven twin tube emitters bring their high stability to the carbon twin, as well as a significantly increased radiation density. In addition, they offer the possibility of manufacture in a range of models and the emitters can be connected to conventional standard mains supplies.

The carbon emitter technology contributes to the high power density of the carbon twin. Carbon emitters have twice the maximum power density of conventional medium wave twin tube emitters. In addition, carbon emitters have fast heat-up and cool-down times and can be switched on and off in seconds.

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Spectrum of the Carbon Twin infrared emitter compared with other Heraeus Noblelight infrared emitters – taken at the same electrical power for all emitter types.

### Technical Data

- medium wave, 1200 °C, peak wavelength 2 µm
- maximum power density approx. 150 kW/m<sup>2</sup>  
(carbon round tube 100 kW/m<sup>2</sup>, medium wave twin tube 60 kW/m<sup>2</sup>)
- maximum linear power density 80 W/cm
- switch on and off times of only 1 or 2 seconds
- conventional mains voltages
- twin tube format 34 x 14 mm
- designs A B C D L, others on request
- lengths up to 3 m
- gold plated
- one- or two-sided connection

### Range of the Carbon Twin Tube Emitter

Model	Heated length [mm]	Voltage [V]	Power [W]	Max. linear power density [W/cm]	Maximum power density [kW/m <sup>2</sup> ]
A	100 – 1500	Standard e.g. 115, 230	350 – 5250	40	75
B	100 – 1500		700 – 10500	80	150
C	100 – 1500	400, 480	700 – 10500	80	150
D	100 – 3000		350 – 10500	40	75
L	100 – 3000		350 – 10500	40	75

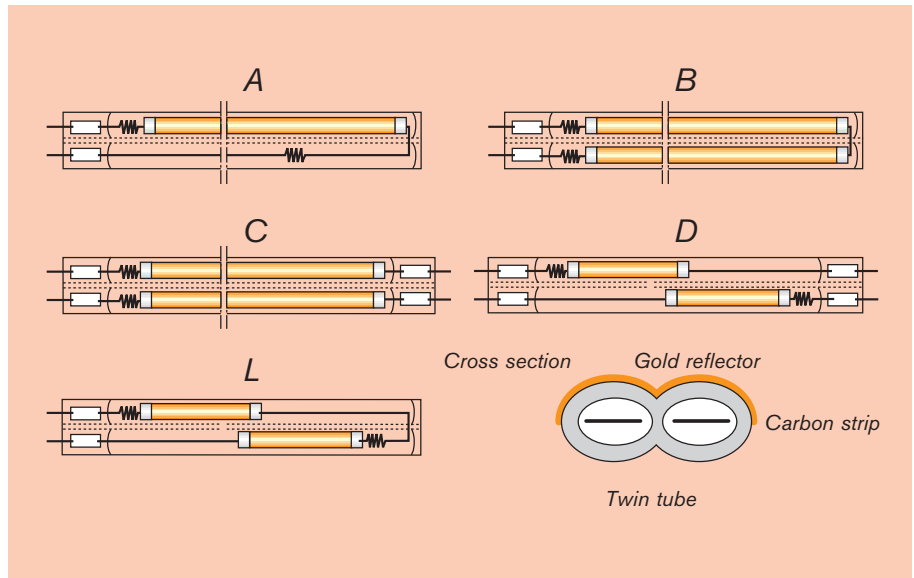
### Heraeus Noblelight

is market leader for tailor-made infrared emitters. We provide individual customer advice and offer an Application Centre for your tests. We have the optimum spectrum for your application

- NIR Infralight – halogen infrared emitters
- Twin tube infrared emitters in all relevant wavelengths
- CIR® Carbon infrared emitters
- Infrared modules and controls for industrial applications
- Emitters for targeted heating in finishing processes

Standard designs for Carbon twin tube emitters (A, B, C, D, L)

### Designs



We reserve the right to change the pictures and technical data of this brochure.

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