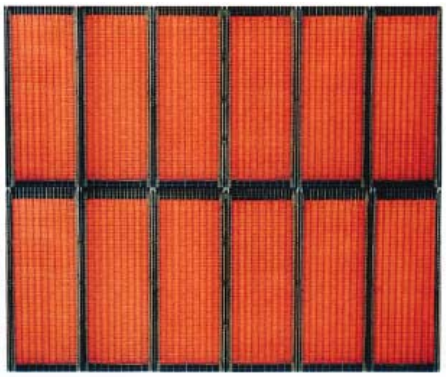
CRN TECNOPART, S.A.
Sant Roc 30
08340 VILASSAR DE MAR (Barcelona)
Tel: 937 591 484 Fax: 937 591 547
e-mail: crn@crntp.com - www.crntecnopart.com

IR-160.49E

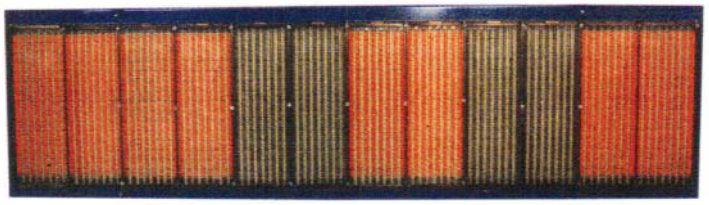
KBF THE RAPID MEDIUM-WAWE INFRARED RADIATOR

PRINCIPLE DESIGN OF THE KBF RADIATOR



The heating surface consists of a ceramic insulation material and a high-temperature metal foil. The insulation material supports the meal foil and obstructs the flow of heat to the back. A heating surface is divided up into modules . The module and heat-field framework is made from aluminium or stainless steel.
The radiation side is covered with a stainless steel wire grid for protection . The electrical connection comes through a flexible metal tube or is w ired in a terminal box.
The heating foils are made from a very stable and resistant material which makes them insensitive to vibrations and alternating thermal loads.
The self-cleaning effect when exposed to contamination from solid condensates etc. guarantees along service life.

Different temperature profiles over the product width at constant distance from the heating foils or preliminary choice of working widths
Division into different temperature zones
The power can be controlled continuously from 0-100% using an electronic controller. The heating zones (temperature zones) are divided up according to discussions with the customer. The temperature of the product can be regulated by means of a radiation thermometer etc.
Our products and services include the entire regulator and control installation as well as the manufacture of customer-specific systems with our IR heating technology



CHARACTERISTICS

Dimensions

Minimum size of module : 250 x 250 mm or 500 x 125 mm
Maximum size of module: 1000 x 300 mm
Modules of any size can be assembled and wired to make up a heating field

Installatión:

Individual modules or entire heating areas can be provided with suspension fittings for attachment to a support frame etc. depend ing on the customer ‘s requirements

Power output and voltage

Standard surface output up to 40 kW/m^2
Spec ia l des ign up to 60 kW/m^2
TStandard voltage 230/400V
Line voltage: any.

STANDARD MODELS

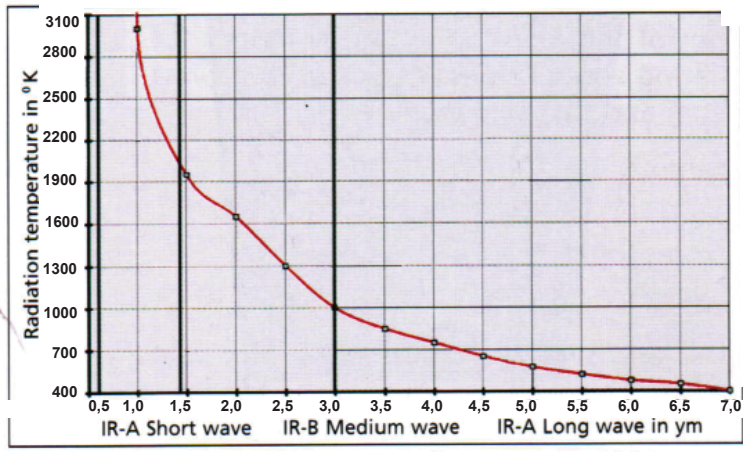
KBF SQ

KBF SR

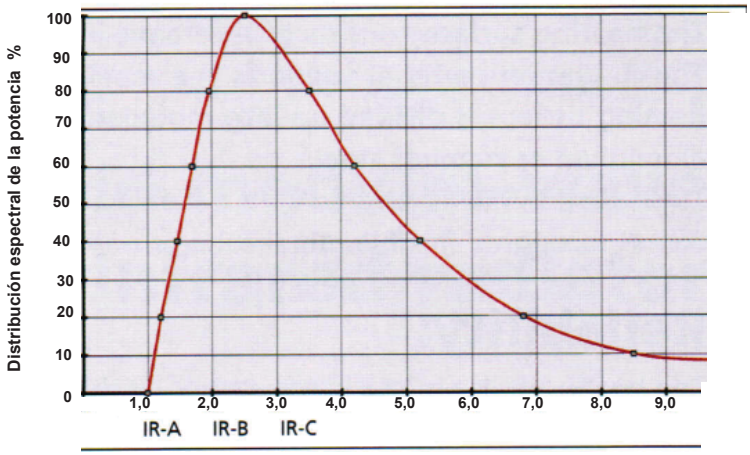
Model	Dimensions mm	W a 230V	Part Nº
KBF SR-3500	498 x 124	3500	329390001
KBF SR-3000	498 x 124	3000	329390002
KBF SR-2500	498 x 124	2500	329390003
KBF SR-2000	498 x 124	2000	329390004
KBF SQ-3500	248 x 248	3500	329390011
KBF SQ-3000	248 x 248	3000	329390012
KBF SQ-2500	248 x 248	2500	329390013
KBF SQ-2000	248 x 248	2000	329390014

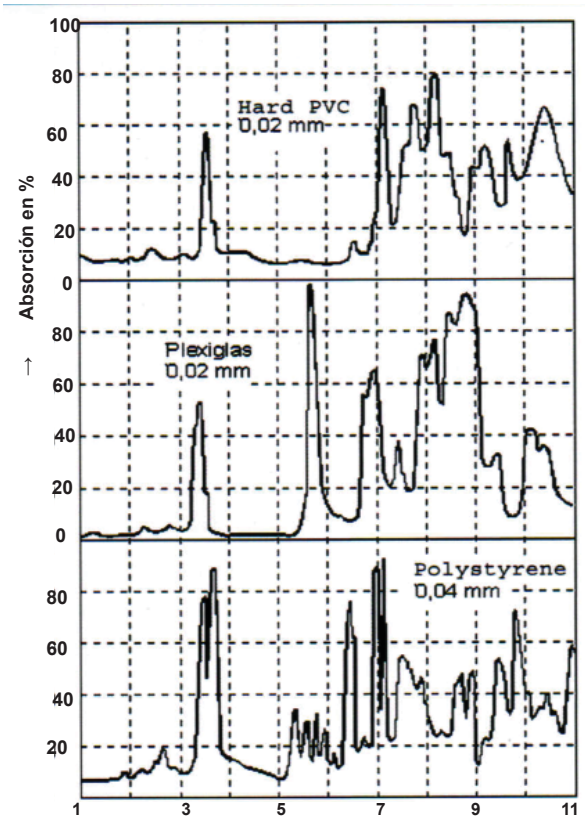
Heating time 6 seg.
Cooling time 4 seg.

OPTICAL RADIATION RANGE



Infrared spectrum according to DIN 5031.





As shown in the diagrams above, most plastic films show good absortion in the vicinity of the radiation maximum of the KBF radiator.
With thick materials, the reflection properties must essentially be taken into consideration

THE RAPIP LONG-TO MEDIUM WAVE KBF STRIP-FILM HEATER

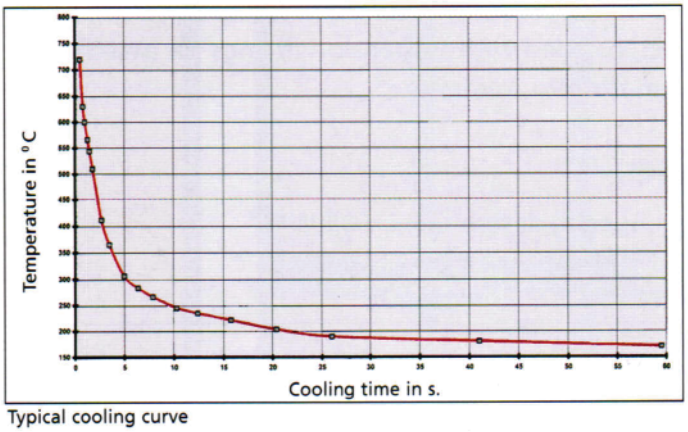
W ith the new KBF heating surface, D.Krieger GmbH has expanded its radiator range so that it can offer users convenient and rapid-response solut ions.

- Heating time up to 2/3 power output : approx. 5-6 s
- Cooling time down to 1/3 power output: approx. 3-4 s
- Radiation temperature: approx. 800°C
- Spectrum : 2600-9600 nm
- Eff iciency: approx 90-95%

Information required from the customer
Length
W idth
Power
Voltage
Zone distr ibution

Examples of use:
- Termofixing
- Annealing
- Thermoforming
- Conditioning plastics

Temperature-time chart



Typical cooling curve