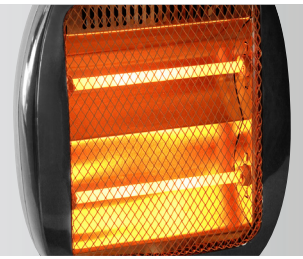
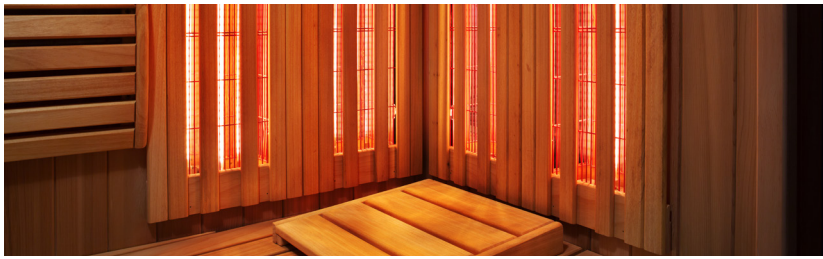


MANAGE THE HEAT



infrared
SURFACES





infrared are the high-reflective aluminium solutions designed specifically by Almecco to manage the Infrared radiation.

What infrared waves are Infrared (IR), sometimes called infrared light, is an electromagnetic radiation (EMR) with wavelengths longer than those of visible light, invisible to the human eye and perceived as heat.

Infrared waves transmit large amounts of energy (defined as heat) in a short time without direct contact or the need of any intermediate conductive matter.

To avoid excessive concentration of heat and annoying light reflections, a good expertise is needed in the design of the heating system for any specific environment.

Why to use IR surfaces? The **infrared** can help maximize the irradiance by concentrating radiation toward a specific direction or they can spread the radiation increasing the overall uniformity distribution.

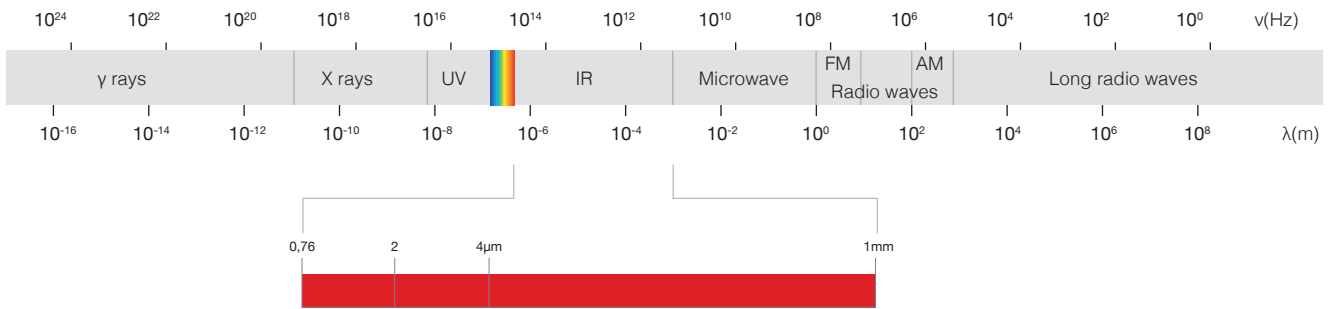
Infrared heat can be directed exactly where it is required by the use of optimized reflectors that improve the effectiveness of the irradiation system and reduce the energy waste.

Most products undergo a heating process during the manufacturing phase: eg. paints are cured, adhesives activated, plastics heated prior to forming.

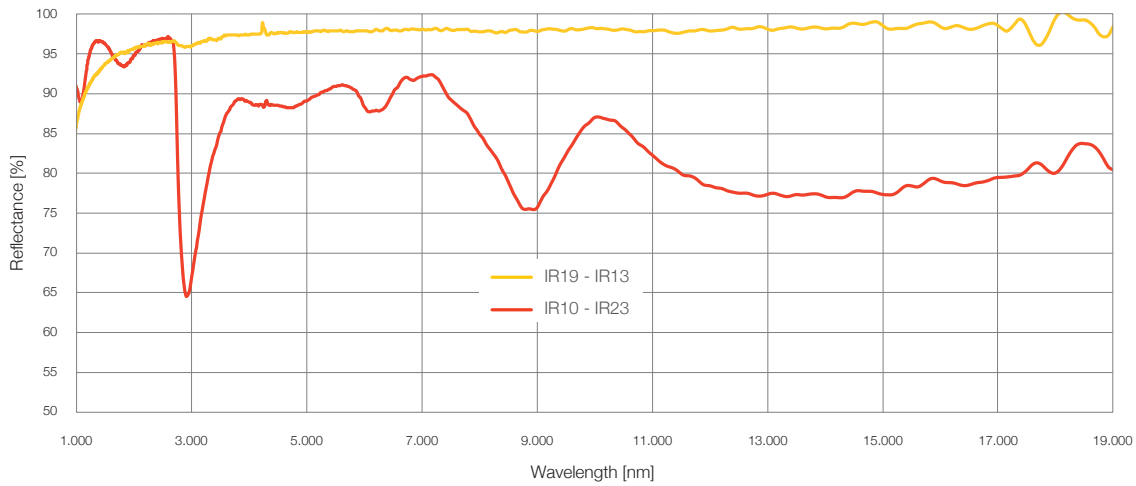
Using the IR systems, the heating is faster and the space requirements are smaller which results in a more cost-efficient and sustainable production chain.

Where to use IR products? There is a huge number of application fields:

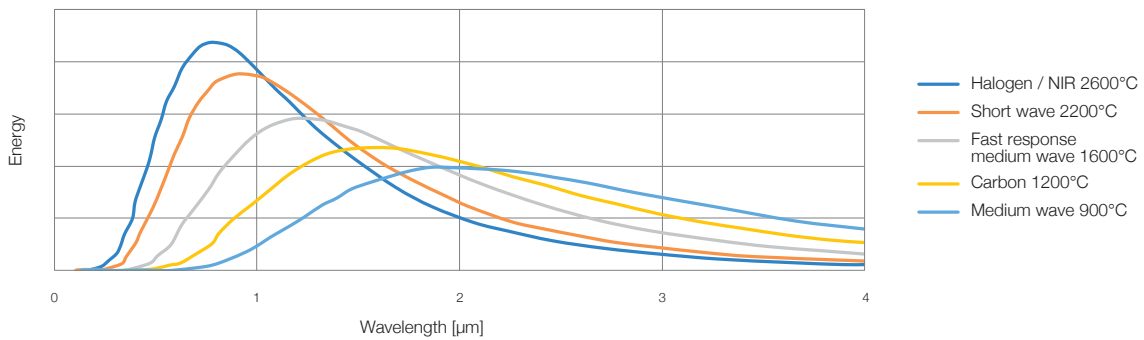
- Heating
- Surface modification
- Activating adhesives
- Forming
- Baking
- Curing and polymerisation
- Drying
- Melting
- Annealing
- Germ reduction



IR spectra



Spectral radiation curves for different infrared emitters and temperatures



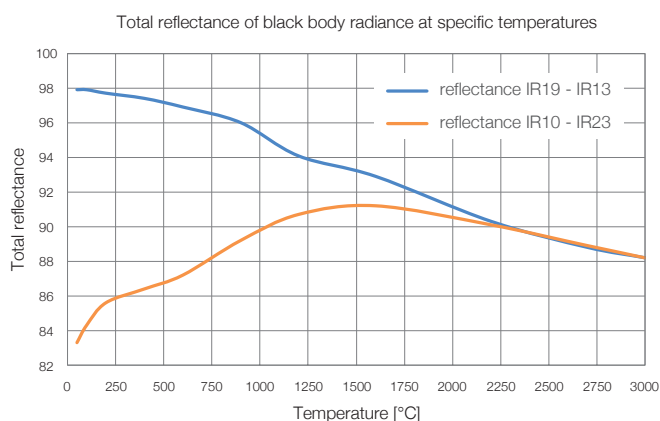
IR19 - IR13 HIGH REFLECTIVITY

IR10 - IR23 HIGHER RESISTANCE

| | Standards | IR19 | IR13 | IR10 | IR23 |
|---------------------------|-----------|----------|-------------|----------|----------|
| Alloy | EN 573-3 | 1085 | 1080 | 1085 | 1085 |
| Temper | EN 515 | H18 | H18 | H18 | H18 |
| Finishing | | specular | mill-finish | specular | hammered |
| Min tensile strength Rm | EN 485-2 | 125 MPa | 125 MPa | 125 MPa | 125 MPa |
| Min Yield strength Rp 0,2 | EN 485-2 | 105 MPa | 105 MPa | 105 MPa | 105 MPa |
| Min elongation A5A10 | EN 485-2 | 2% | 2% | 2% | 2% |

Gauge available from 0,3 to 1,0 mm in max width 1250 mm

| T°C | Reflectance (%) | |
|------|-----------------|-------------|
| | IR19 - IR13 | IR10 - IR23 |
| 3000 | 88,20 | 88,20 |
| 2700 | 88,80 | 88,90 |
| 2200 | 90,30 | 90,10 |
| 1600 | 92,90 | 91,20 |
| 1200 | 94,08 | 90,70 |
| 900 | 96,00 | 89,20 |
| 600 | 96,90 | 87,20 |
| 400 | 97,40 | 86,40 |
| 200 | 97,70 | 85,60 |
| 100 | 97,90 | 84,30 |
| 50 | 97,90 | 83,30 |



Almeco SpA
Via della Liberazione 15
20098 San Giuliano M.se (Mi) - Italy
T +39 02 988963 1
F +39 02 988963 99
almeco@almecogroup.com

Almeco GmbH
Claude Breda Strasse, 3
D-06406 Bernburg - Germany
T +49 3471 3465500
F +49 3471 3465509
info.de@almecogroup.com

Almeco USA Inc.
1610 Spectrum Drive
Lawrenceville, GA 30043 - USA
T +1 770 449 3454
F +1 770 449 3677
info@almecousa.com