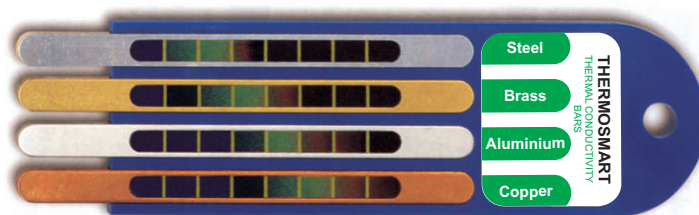


THERMAL CONDUCTIVITY BARS

Our thermal conductivity set comprises four metal bars held firmly together and in parallel with a plastic rigid carrier the metals are copper, aluminium, brass and steel. Each bar has a liquid crystal temperature sensitive strip attached to the front of it and its conductivity value marked on the back of the support. The liquid crystal strips have 8 boxes on them and change to a green colour at about 40°C.



Part No.	°C	Specification	Backing
L01LCRVR035C1LS	25°C TO 45°C	80MM X 6MM x 4	In Holder

WHAT THE COLOURS SHOW

The thermochromic liquid crystal used in Thermosmart Conductivity Bars shows temperatures in the range 35°C to 45°C. The lowest temperature indication is a coppery red colour at 33°C and the hottest is a blue colour at over 45°C. The 35°C to 45°C range is at the outer limits of the green zone.

RADIATION KIT

The kit contains four aluminium discs, each having a different durable finish:

Matt black, mirror black, matt silver and mirror silver. Bonded to the reverse of each disc is a liquid crystal thermometer measuring 30°C to 65°C in 5°C increments. The liquid crystal device on the disc is easy to read and shows how absorption of heat radiation depends on surface colour and texture. The disc reacts very quickly to a heat source such as infrared or a bright light, giving fast results, so more experiments can be completed in each lesson. The discs can be used to investigate rates of cooling, the effects of filters and reflectors, inverse square law and equilibrium between absorption and emission. The discs are supplied as a set of 4 along with a holder in a storage box.



Part No.	°C	Specification	Backing
L01LCRCR030C01LS	30°C, 35°C, 40°C, 45°C, 50°C, 55°C, 60°C, 65.	37mm circles x 4	Coated Aluminium Disc

THERMAL SHEETS

Thermocolour sheets are self-adhesive and consist of a thin layer of liquid crystal that has been printed on to a black background. Liquid Crystals are organic chemicals with twisted helical molecular structures, which expand, or contract with increases or decreases in temperature, not unlike a spring. This results in different wavelengths of incident light being reflected from the slightly changing structure, which our eyes see as changing colours.

Part No.	°C	Specification	Backing
SH1LCRR20C05WA05	20°C TO 25°C	150MM X 300MM	Adhesive
SH1LCRR25C05WA06	25°C TO 30°C	150MM X 300MM	Adhesive
SH1LCRR30C05WA03	30°C TO 35°C	150MM X 300MM	Adhesive
SH1LCRR35C05WA03	35°C TO 40°C	150MM X 300MM	Adhesive
SH1LCRR40C05WA02	40°C TO 45°C	150MM X 300MM	Adhesive

