

## Technical Informations

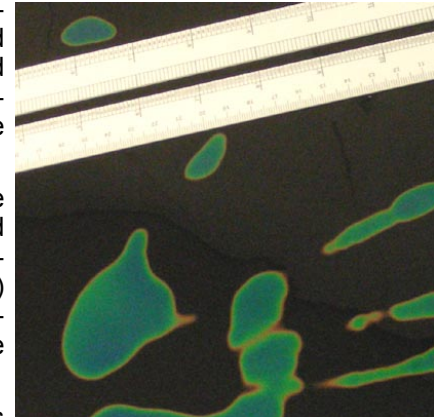
### Reversible Temperature Sensitive Foils

#### LC-Thermofoils CelsiReverse®

##### LC-THERMOFOILS reversible thermosensitive foils in liquid crystal technology

Such foils are coated with special, microencapsulated liquid-crystals reacting by colour changes to temperature variations within their specified range of "temperature versus colour" play. These Polyester material based foils are available with or without adhesive backing. Our LC-Foils are mostly manufactured to customers specific needs for size, temperature range and other parameters.

Below and above its specific colour play the LC-foil is black. Starting the temperature move from below temperature sensitive window towards and through the visible part of the colour play, the colours will go through a sequence of black -> reddish -> yellow ->green to -> final dark-blue (black) sequence. Any additional temperature increases will not cause any additional colour variations. The colour play reverses when temperatures are passed in opposite direction.



**LC-Thermofoils** are defined by the temperature level at which the colours start to play and the temperature band (width) within the colours do play from low end black to high end black. Most thermofoils are available from stock.

Part-no	System-no.	Colorplay °C	Red Start °C	Green Start °C	Blue Start °C	Bandwith °C	Dimension of sheet
CR/LCF-W20-30.45	16735	20-25	20	21	25	5	300x450 mm
CR/LCF-W25-30.45	16733	25-30	25	26	30	5	300x450 mm
CR/LCF-W28-30.30	10934	28-34	28	30	34	6	300x300 mm
CR/LCF-W30-30.45	16792	30-35	30	31	35	5	300x450 mm
CR/LCF-W35-30.45	16793	35-40	35	36	40	5	300x450 mm
CR/LCF-W40-30.45	16794	40-45	40	41	45	5	300x450 mm

Pricelists and discounts on request.

##### LC-THERMOSTRIPS

LC-Thermofoils can be printed with various staged temperature levels and become **LC-Thermostrips**, see image to the right.

Type LC-12.34.12.062 #10933 with the temperature levels (12/14/16/18/20/22/24/28/30/32/34°C), each strip size 62 x 6 mm wide. 74 such strips are on a 125 x 225 mm release sheet. The green "18" indicates the supplied sheet with 74 strips is on an ambient 10 °C temperature. For application, the individual ThermoStrips® would be pulled from the release paper. The naked eye would hardly see the exceeded levels 12 and 14 °C. 16, 18 and 20 would be seen. The illumination technology for the photo did "surface" the usually invisible passed levels.



**LCS-Slurries** are liquid crystal "paint" mixture. Certain types *might* be available on **special request**. Application needs some training and experimenting on how to properly screen-print and handle. Application is by brushing, painting, spraying and printing. Each coating version one needs a special preparation of the formulation. Available in 250 or 500 ccm quantities. About 250 ccm per m2 gives a good coverage over the substrate. Application needs some training and experimenting on how to properly screen-print and handle.

part	no.	description
CR/LCT-00.36.18.250	# 10931	Liquid crystal thermometer strip, reversibel, with 18 levels 0/2/4/6/8/10/12/14/16/18/20/22/24/28/30/32/34/36 °C, strip size 225 x 15 mm, self adhesive backing
CR/LCT-00.40.21.120	# 15371	Liquid crystal thermometer strips, reversibel, 21 temperature levels 0/2/4/6/8/10/12/14/16/18/20/22/24/28/30 /32/34/36/38/40 °C, Strip 120 x 10 mm wide, self-adhesive, 22 strips on release paper (125 x 220 mm)
CR/LCT-12.34.12.062	#10933	Liquid crystal thermometer strips, reversibel, 12 temperature levels 12/14/16/18/20/22/24/28/30/32/34 °C, Strip 62 x 5 mm wide, self-adhesive, 74 strips on release paper (125 x 225 mm)
CR/LC-S- ...		Custom design on request

Pricelists and discounts on request

**LCS-Micro-Encapsulated Slurries** are liquid crystal "paint" mixtures with the LC particles encapsulated in tiny microspheres. Such coatings are relatively stable against "chemical attacks" from ambient atmospheres (oxygen, sulphur, ...) and electrically not conductive. Certain types *might* be available on special request. Available in 250 or 500 ccm quantities. About 250 ccm per m2 gives a good coverage over the substrate. Application needs some training and experimenting on how to properly screen-print and handle. Inquire on availability for your task. Need for detailed informations otherwise there is no meaningful response possible.