

Brilliant idea of the month:

Rich in contrast and longer service life: high-quality inorganic panels in SANYO projectors.

They offer a whole range of advantages: extremely natural colours, sharp contrasts and a substantially extended product service life. That's why inorganic panels are already fitted in many SANYO projectors. Equipped in such a way, the users of devices for professional installations and users in the Home Cinema as well as Business & Education categories can enjoy the highest quality projections.

Fascinating image quality for every use.

Inorganic panels can display the colour spectrum in a very natural and impressive manner. That's why they are recommended for all types of presentations where above-average image quality is a must. For the typically rich contrast with a deep black value, connected with high brightness and a long service life, several factors are taken into account:

- The inorganic parts of the LCD panels are UV-resistant and age much more slowly.
- The liquid crystals in the panel are set out so that light beams can be better blocked. As a result, the contrast range grows – without comprising the brightness (for example, the PLC-XF1000 achieves a contrast ratio of 4,000 : 1).
- Thanks to reduced pixel electronics, the LCD panel is more translucent and the projected image brighter.
- The greater robustness of the LCD panels leads to a longer service life for the projectors and to brighter systems with the same size panels.
- Currently, the following projectors feature inorganic panels: PLV-Z4000, PLC-XU106, PLC-XU116, PLC-WTC500AL, PLC-XM100L, PLC-XM150L, PLC-WM5500L, PLC-WM4500L, PLC-XP100L, PLC-XP200L, PLC-XF1000, PLV-WF20 and PLC-XF47.



PLV-Z4000



PLC-XU106



PLC-XU116



PLC-WTC500AL



PLC-XM100L



PLC-XM150L



PLC-WM5500L



PLC-WM4500L



PLC-XP100L



PLC-XP200L



PLC-XF1000



PLV-WF20



PLC-XF47

Numerous projectors from SANYO are equipped with new inorganic panels and their fascinating image quality and longer service life speak for themselves.

How do inorganic panels work? Very simply and with many advantages.

All LCD panels are back-lit by a single light source. Like controllable valves, they influence how much light an LCD cell receives. The liquid crystals of each individual cell are controlled and positioned to either block or let in a particular amount of light per pixel via electronic fields. Inorganic panels offer the advantage that the liquid crystals take up a perfectly defined alignment, even without electric voltage. If there is no power, the light is even more effectively and more evenly blocked in this way and the respective pixels then appear even darker.

Further advantages can be found in the alignment layer, the name of the layer for positioning the liquid crystals. Unlike its organic counterpart, it is made of inorganic material. This is much more robust against the UV radiation of the projector lamp and makes the liquid crystal tracts more light-resistant. It increases the service life and enables SANYO to manufacture even brighter projectors.

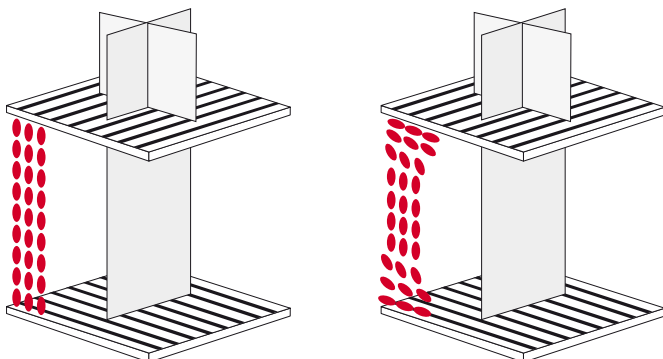
Thanks to the improved activation of the liquid crystals at up to 120 Hz, burn-in effects on the inorganic panels from static images are also avoided. A non-optimal alignment of the individual pixel cells in combination with reduced contrast ratios is also not possible. In addition, it allows for the deeper black values mentioned earlier, thanks to the improved elimination of light information. Therefore, the difference between black and white becomes greater and the contrast ratio increases noticeably.

Finally, the pixel electronics of the LCD panel have a smaller design, thus increasing the useable pixel area. This means that more space is created for the flow of light by the individual pixels. The transparency of the entire panel and therefore the brightness of the projector increases. The visible pixel structure of the LCD panel in older systems – the so-called fly screen effect – is also significantly reduced.

LCD projectors from SANYO generate their colours through 3, in 3LCD systems, and 4, in QuaDrive systems, separately controlled LCD panels. Here, the colour fidelity and intensity is particularly high. In addition to this above-average colour quality, there are also excellent contrast ranges and long-lasting components – for which the new inorganic LCD panels can take credit.

Advantages at a glance:

- Inorganic panels deliver a fascinating image quality, as they are able to display colours even more naturally. The particularly deep black value enables an excellent contrast ratio.
- The optimum activation of the liquid crystal cells creates an impressive image homogeneity. Therefore, projectors with inorganic panels are particularly well-suited to edge blending installations.
- The smaller activation electronics for the individual pixels increases the light output and thus the brightness.
- Inorganic LCD panels are more UV-resistant. They therefore have a significantly longer service life.



The picture to the left shows the inorganic panel when switched off. The optimal alignment of the liquid crystals evenly blocks the light. The picture to the right shows the LCD panel with voltage and tipped crystals for optimum transparency.