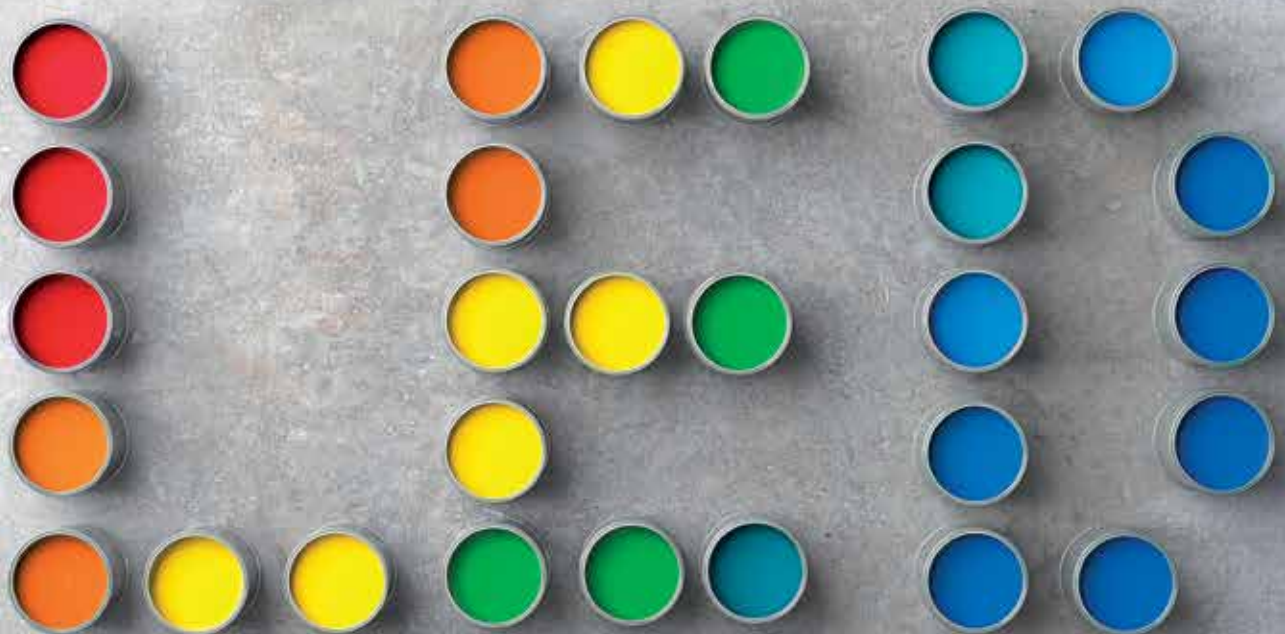


# LED technology

We are ready. Are you?



# LED CURING - OFFERS FANTASTIC OPPORTUNITIES



## New process for wood finishing

LED curing technology offers fantastic opportunities within wood finishing. It provides the same high level finish like UV curing, but with a number of benefits. With Sherwin-Williams LED cure wood coating solutions you can now take advantage of this technology for the first time.

### Who can benefit from LED technology?

If you currently use UV curing solutions or you plan to start using them, then you can implement LED technology into your wood finishing process. At Sherwin-Williams we create tailored LED coating solutions that provide the optimal finish for virtually every segment including home and office furnishing, kitchen and bathroom fittings, and interior joinery, as well as for any wood finishing line.

### Reduce energy consumption

Although very effective, most UV curing lamps are expensive to run compared to LED curing units. And, most UV lamps have a lengthy "warm up" cycle at start-up, which means they must remain on at all times during production, thus constantly drawing energy. LED units on the

other hand can be turned on and off at will with no detrimental effect to the diodes. What's more, LED technology generates about 40% energy savings.

### Eliminate problems with resinous woods

Most UV lamps produce a lot of heat. This can cause significant problems when coating pine or other resinous wood species. With LED curing this problem is eliminated, as LED does not heat the substrate.

### Reduce maintenance costs

It's no secret that the effectiveness of most standard UV lamps declines over time. Measuring the UV energy output from each lamp is an expensive and time consuming process. However, it has to be done on a regular basis to ensure proper curing of the coating. This procedure is unnecessary with LED units as they last for thousands of hours and do not fade over time.

## Tailored curing solutions for existing line

### Eliminate lamp-based down time

When the UV coating lamps is no longer performing effectively the line must be shut down. When the lamp has cooled down, it can be exchanged for a new one, and, once the new lamp has reached operation-ready temperature, production can start again – a process that can take up to 15 minutes. LEDs, on the other hand, have such a long life that it will take years before they burn out. In fact, there is a good chance that they will last longer than the line itself!

### Improved working environment

Most UV lamps emit heat and generate harmful ozone, both of which cause a potentially unpleasant work environment for employees. Furthermore, the exhaust used to cool most UV coating lamps and evacuate ozone pollution is often noisy and monotonous. LED units however, do not emit heat or generate ozone, thus improving the working environment considerably.

### Reduced environmental impact

Most standard UV curing lamps contain mercury and other heavy metals, which makes disposing of them a costly and environmentally sensitive process. They also generate ozone and require large amounts of energy. LED do not generate

ozone, and they use much less energy. All in all, a much more sustainable solution.

### Shorter production lines

Standard UV coating units require a reasonable amount of floor space. Most UV units in moulding lines, for example, measure about 2-3 meters in length per application. Moulding lines can really benefit from LED technology as the curing section can be cut down to about a third of the size.

### Existing line

If you have a well functioning line that uses standard UV curing lamps, but would like to take advantage of the benefits on offer from LED curing technology, our experienced engineers can assist you with calculating the best options for switching UV lamps to LED units. They will take into account such things as product flow dynamics and finishing requirements, to provide a complete blueprint.

LED units can replace standard UV curing lamps in almost any position in a line, in both clear and pigmented systems.



## BENEFITS WITH LED

- > Reduced energy consumption
- > Eliminate problems with pine and other resinous wood species
- > Reduced maintenance costs
- > Eliminate lamp-based down time
- > Improved working environment
- > Reduced environmental impact
- > Shorter production lines



### Sherwin-Williams – Your Coating Solutions Partner

The Sherwin-Williams Company (SHW), through its Product Finishes Division, is an industrial coatings leader that delivers local finishing solutions on a global scale to OEMs and tier suppliers. Comprised of coatings professionals dedicated to providing unparalleled customer support, Sherwin-Williams brings value to the finishing process through solutions like on-site technical assistance, customized products, colour and design services, and process improvement expertise. With innovative liquid and powder coating technologies to protect wood, metal and plastic, as well as finishing equipment and supplies needed for coatings application, Sherwin-Williams utilizes an infrastructure spanning six continents to provide better finishing solutions for manufacturers.