

Designing a Light-Curing Process

Get to know the key components required for light curing, all of which must be optimized to work together.

LIGHT-CURABLE MATERIALS

There are a variety of light-curable materials (LCMs) that manufacturers use to bond components.

Facts:



EXAMPLES INCLUDE EPOXIES, SILICONES, AND ACRYLATE SYSTEMS

LCMS CAN HAVE 1 OR 2 COMPONENTS

WILL CURE WITH UV AND/OR VISIBLE LIGHT

MAY NEED SECONDARY HEAT OR MOISTURE CURE



DISPENSING EQUIPMENT

To apply an LCM to a component or substrate surface, a dispensing system is required.

Facts:

TYPES OF DISPENSERS INCLUDE:



- HAND-HELD
- MACHINE-MOUNTED
- ROBOTIC
- ROTARY

APPLICATION METHODS INCLUDE MANUAL OR AUTOMATED DISPENSE THROUGH:



- SYRINGES
- VALVES
- SPRAY GUNS

LIGHT-CURING EQUIPMENT

In order to bond components together with an LCM, you'll need a light-curing source.

Facts:

TRADITIONAL BROAD-SPECTRUM SYSTEMS USE BULBS FOR CURING



THE MOST POPULAR CONFIGURATIONS FOR LIGHT-CURING SYSTEMS ARE:



NEWER LED SYSTEMS CURE WITH LED ARRAYS

- SPOT
- FLOOD
- CONVEYOR-STYLE



Dymax manufactures curing equipment and compatible adhesives, coatings, and resins. We focus on creating solvent-free materials that cure clean, green, and fast, helping engineering teams accomplish more in less time and with less negative impact on the environment.