

# Ultraviolet (UV) Curing for Plastic Containers

A complete line of UV systems provides thorough, controllable curing for a variety of plastic container applications.

Nordson is one of the largest manufacturers of UV lamps in the world, offering a wide range of UV curing systems that provide efficient, reliable curing to meet most any production need. With technology that includes microwave-powered units in varying lengths, single-lamp and dual concentrated focus (DCF) electrode systems and water-cooled systems, Nordson can provide a UV curing option to accommodate various heat sensitivity and line speed requirements.

## CoolWave® 2 Microwave-Powered UV Curing Technology

For heat sensitive substrates and systems where the lamp cycles on and off frequently, Nordson CoolWave 2 Systems maximize efficiency, providing up to 600 watts of power per inch. Constructed using all stainless steel components, CoolWave 2 systems provide the most advanced and durable microwave-powered UV system available on the market today.

The CoolWave 2 system incorporates a proprietary dichroic reflector as a standard feature. The dichroic technology does not reflect heat-generating infrared light waves back to the substrate. As a result, UV light is focused precisely where it is needed, with significantly less infrared energy.



In fact, compared to conventional UV systems, the CoolWave 2 system emits up to 30 percent less heat-generating infrared energy, provides a wider range of focal point options, and includes magnetrons warranted for 3,000 hours to lower maintenance costs.



## CoolWave 2 system features include:

- Durable non-conductive, heat-resistant reflectors provide longer service life.
- Flexibility in design, with three types of reflectors available – 2.1” focused, 3.1” focused and flood. Every reflector comes with the industry’s first five-year warranty against defects in workmanship and reflectivity.
- No internal gasketing in the microwave cavity means lower operational greater reliability and lower maintenance costs.
- Monitoring of system air pressure, lamphead temperature and power supply temperature
- Cooler operation because the dichroic-coated reflector does not reflect all of the heat-generating infrared light.
- Enhanced diagnostics for easy system set-up and fault monitoring
- Optional internal blower eliminates the need for any external/remote cooling blowers.



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## Other UV Technologies to Meet Most Any Curing Need

In addition, electrode units that offer up to 500 watts per inch with a single lamp and 1,000 watts per inch with DCF lamps are available. For the ultimate in heat control, water-cooled Monocure systems are also available.

Nordson also offers CoolArc™ ultraviolet lampheads for a variety of plastic applications. CoolArc lampheads offer a fast-change lampbulb feature for quick, easy maintenance. An integral electronic shutter system offers fast-acting response over millions of cycles. In addition, they incorporate the most advanced power supply technology, integral cooling air blower and heat-resistant dichroic reflectors.



## Available Bulb Types

Nordson UV curing systems are available with a complete range of fully interchangeable mercury and metal halide lamp alternatives, offering the ultimate performance with all material chemistries. These include Mercury, Mercury+, Mercury Iron, Mercury Indium and Mercury Gallium. For more details, contact your Nordson representative.

## Container Systems' Best Practices Pledge

At Nordson, our technology, equipment and expertise work together to offer the best solutions to our customers for their applications. This may result in better quality, improved manufacturing efficiency, less downtime, reduced coating material consumption, faster line speeds, or combinations of these and other factors that enable manufacturers to produce a better product at a lower cost. We work with our customers to improve their coating and manufacturing processes overall. It is with this continuous focus on Best Practices, that we partner with customers to find successful solutions for improved quality and productivity.

For more information, speak with your Nordson representative or contact your Nordson regional office.

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Technical Specifications	Electrode Lamp System				Microwave-Powered Lamp System			
	Single, Double and Configured Short Lamp Systems	Double Concentrated Focus (DCF) Systems	CoolArc	Monocure	CoolWave 306	CoolWave 506	CoolWave 410	CoolWave 610
Standard Cure Lengths	4", 6", 8" 10" and 12"	4", 6", 8" 10" and 12"	3", 4", 6", 8" 10" and 12"	up to 98" (248 mm)	6" (152 mm)	6" (152 mm)	10" (254 mm)	10" (254 mm)
Power Rating	4" – 500 WPI 6" – 500 WPI 8" – 500 WPI 10" – 450 WPI 12" – 375 WPI	4" – 1000 WPI 6" – 1000 WPI 8" – 1000 WPI 10" – 900 WPI 12" – 750 WPI	100 to 600 WPI depending upon area of use	up to 600 WPI	300 WPI	500 WPI	300-400 WPI	600 WPI
Power Levels	Up to three	Up to three	Variable	7-stepped or Variable	1-fixed	Variable	2-fixed	Variable
Cooling Type	Positive Air Integral or Remote Blower	Positive Air Integral or Remote Blower	Integral blower	DI Water to air/water exchanger or chiller	Internal or Remote Blower	Remote Blower	Internal or Remote Blower	Remote Blower
Utilities	460/480 VAC, 3PH, 60 Hz	460/480 VAC, 3PH, 60 Hz	200/480 VAC, 3 phase, 50/60 Hz	200/480 VAC, 3 phase, 50/60 Hz	200/230 VAC, 1 phase, 50/60 Hz	380/480 VAC, 3 phase, 50/60 Hz	200/230 VAC, 3 phase, 50/60 Hz	380/480 VAC, 3 phase, 50/60 Hz
PLC Controls	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Shutter Option	Add-On	Add-On	Integral	Optional	Add-On	Add-On	Add-On	Add-On

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