

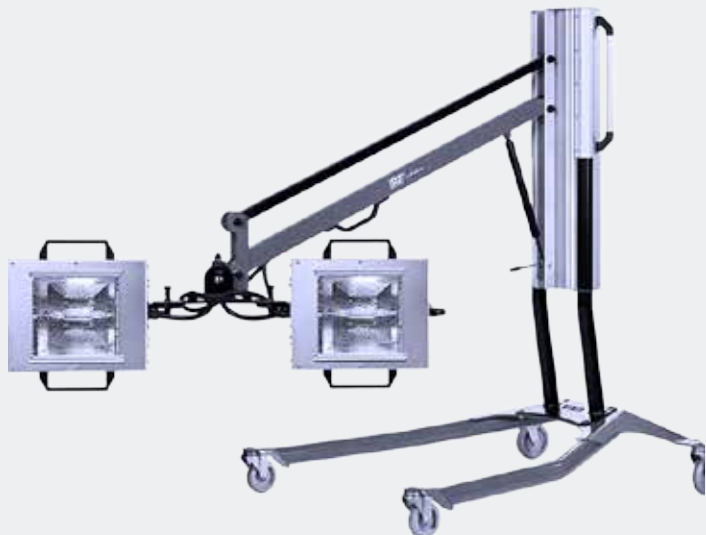
*Equip to win*

# **EFFICIENT ULTRAVIOLET CURING**

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## *UVA curing – a profitable process upgrade*

Ultraviolet curing (UVA: 315-400 nm)—a fast, efficient curing method—is continuing to gain ground in the automotive aftermarket. For Body & Paint Shops looking to upgrade processes and improve profitability, the new, unique Combi from the Hedson product brand, IRT, provides easy entry into UVA curing by combining it with IR curing in a single unit.

Ultraviolet curing has been widely adopted in many industries since it was first introduced in the 1960's. It has been a proven method in the automotive aftermarket since the 1990's. The use of ultraviolet curing continues to grow, as the benefits from efficiency gains make increasing sense for Body & Paint Shops in search of profitability. The growth of the segment is in turn driving development of innovative new UVA curable materials to improve performance and quality in the automotive aftermarket.

The ultraviolet curing process uses high-intensity UVA light instead of heat to create a photochemical reaction that cures materials in a few minutes. UVA curing is a rapid, highly effective, low-temperature method that is completely safe when using the right equipment and procedures.

## The benefits of UVA curing

# 1

### RAPID PROCESSING

Curing speed in painting and coating applications is critical. The reduced time it takes to UVA cure speeds up the overall process in Body & Paint Shops.

# 2

### HIGH PERFORMANCE

In addition to rapid curing, the UVA method enhances efficiency by ensuring reliable, high-quality results. The process offers many advantages over traditional drying methods and has been shown to facilitate superior bonding, increase productivity and improve quality.

# 3

### MATERIAL ADVANTAGES

UVA curable materials also provide efficiency benefits. UV filler can be applied in a single thick layer, in contrast to standard IR filler, which is applied in 2-3 layers. There is no material waste, as UV filler does not dry out in the can or spray gun—which also means the gun does not need to be cleaned after every use, but only once a week.

# 4

### COST-EFFECTIVE CURING

An investment in UVA curing equipment provides rapid payback due to reduced waste and reduced work hours—the curing time is shorter and staff spend less time in the mixing room.

# 5

### FLEXIBLE CURING FOR METAL AND PLASTICS

UVA curing generates only a very low increase in temperature, so it also works effectively on plastic parts. The vehicle can be moved on to the next processing stage immediately after the drying cycle is completed.

# 6

### A SAFE CURING METHOD

In ultraviolet curing, the safety of the operator is paramount. With the right equipment and procedures, UVA curing is a completely safe routine for operators. Make sure UVA curing equipment:

- complies with the EMC low voltage directive and EN62471 standard
- has been tested by a third party with documented time of exposure, safety instructions etc.

## UVA curing as process upgrade

The Hedson product brand, IRT, is involved in all aspects of UVA curing in order to help its customers improve their performance. IRT produces UVA curing equipment, help customers select and apply the right UVA dryers, and develops and tests UVA curable materials in cooperation with paint producers.

IRT helps customers to understand the value of process upgrades in order to enhance their productivity and ensure compliance in a rapidly changing sector.\*

Investing in the right product is becoming increasingly important, for fulfilling profitability aims and improving workflow efficiency. A UVA curing solution can often be the right equipment for meeting these twin objectives in a process upgrade.

## IRT solutions for UVA curing

Within curing, IRT offers a wide selection of short-wave infrared (IR) dryers as well as ultraviolet (UVA: 315-400 nm) mobile dryers, which cure a broad range of UVA paint material on small to large areas. IR and UVA dryers are also available on a rail system.

A new innovation from IRT provides easy entry into UVA curing, while also covering IR curing needs. The IRT Combi is a unique mobile dryer that offers both short-wave infrared and UVA curing. An IRT Combi has one or two cassettes—one cassette includes four IR lamps and one UVA lamp. IR and UVA curing can be run individually or in sequence. The UVA dryer has 15 pre-programmed programs for curable paint materials, from putty to clear coat.

An IRT Combi provides flexibility—the capability to switch rapidly between IR and UVA curing—helping Body & Paint Shops to save energy, time and space, and improve their workflow. IRT Combi is available as a mobile dryer or for a rail system, to cover all needs.

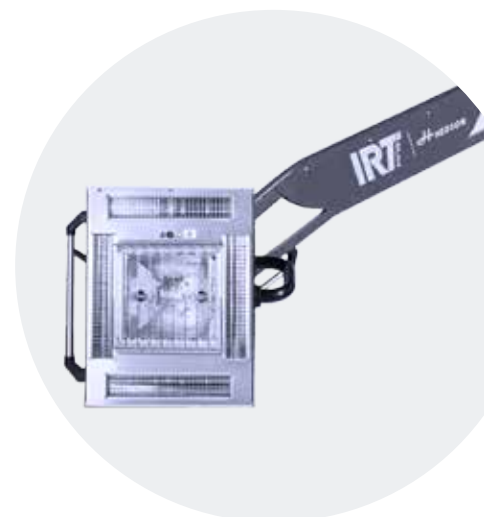
### GETTING THE RIGHT EFFECT

High UVA intensity is vital for fast, high-quality curing results. IRT's UVA dryers are equipped with one or two compact high-efficiency 1000 W UVA lamps, which ensure extremely fast curing, even curing thick filler layers with no problem. Each lamp has a built-in life-length alarm.

The high intensity of the lamps also acts to rectify occasional operator mistakes such as incorrect thickness or distance.

### ENSURING SAFETY

All Hedson products stand for safety and environmental considerations and meet international demands and standards in accordance with the Quality Standard ISO-9001 and ISO-14001.



\* See: Hedson Process Upgrade case Holgers of Norway: [www.hedson.com](http://www.hedson.com)

Regarding UVA curing, IRT has taken all required and responsible steps to define safe working routines for its equipment. Third party testing\*\* has established the recommended protective clothing and equipment required by an unshielded operator when standing in front of an IRT UVA lamp:

- 1m from the light source—protective glasses and clothing are recommended
- 3m from the light source—no protective clothing is required

Our safety measures and guidelines include the following:

- UV light is invisible—we keep visible light in our lamps as guidance for curing
- Our UVA lamps are ozone-free and the protective glass filters out UVB/UVC radiation
- Always check safety glass in the UVA lamp is intact before use to ensure operator protection
- Always use safety glasses when handling UV light—we supply a pair with each delivered UVA curing unit.

Using IRT's UVA curing equipment and following the guidelines will ensure complete safety for the operator in everyday curing routines.

## DEVELOPING NEW MATERIALS

The growth of the UVA curing segment is driving the development of new innovative UVA curable materials that are almost solvent free.

IRT is involved in partnerships with paint companies, helping to develop and test new UVA curable materials that will further enhance the performance and productivity of Body & Paint Shops.

## Conclusions

- 1 UVA curing is a rapid and effective curing method with a productivity aspect that can help Body & Paint Shops meet both profitability and workflow requirements in a process upgrade.
- 2 IRT is a provider of safe, highly effective UVA curing solutions including the unique Combi—which can provide easy entry into UVA curing by combining it in a unit that also delivers short-wave IR curing.

\*\* Third Party UV Safety report (EN62471).