



HEATTECK SOLUTION

www.heattecksolution.com

Infrared

One of radiation, infrared is a part of the electromagnetic spectrum, short-wave infrared heat conversion is better than the others.

Infrared radiation can be divided into three types:

- **Long-wave radiation**
- **Medium-wave radiation**
- **Short-wave radiation**

In accordance with established practice, the shorter the wavelength the resulting higher the temperature, which is great for the penetration effect.

- **Temperature increases = speed**

As a result: short-wave infrared generated penetrability more deeply than the MV infrared and long-wave, thus it became the most effective way of conduction.

The reason for using short-wave infrared to backing

With the introduction of the rules of radiation control paint. The application of the water-based paint and high solids paint are more and more common in the automotive repair industry. The drying time of the new type of paint is longer than the traditional, even if the use of traditional backing methods, drying the paint longer required.

Short-wave infrared has been very popular in Europe, its unique approach to enable it to quickly become the world's authority.

Short-wave infrared in many ways is different from other paint methods. It can penetrate the surface of moist and heat the inner. The bottom-up form is better than the up-bottom method, so that the total paint, it can generate considerable heat, and don't paint peeling and cracking.

The high temperature of the short-wave to reduce the backing time and improve the quality of paint.

Short-wave infrared heat source

(From bottom to up)

**Top-coat
Rough-coat
Base-coat
Metal**

MV infrared heat source

(From up to bottom)

HEATTECK SOLUTION

www.heattecksolution.com

The advantages of short-wave infrared

- Reduced the drying time of organic solvents
- Reduced the drying time of water
- Switch in time , no warm-up and cooling-off period
- Better effect, less cost
- Focused on repairs due to dry areas rather than the whole body , so energy conservation.
- High-quality
- Reduce the required heat
Boost up productivity/profitability/quality

PPG

Backing area 24 feet away from the infrared light.

Temperature is 160-180 °F

If you bake the plastic or heat-sensitive materials, set baking temperature , double the pre-heating time and baking time.

Name	PPG Code	Mix proportion	Reducer	Hardener	Surfacer #	Pre-Heating Time	Baking Time	Total Time (Minute)
Acrylic Urethane	DAU	1:1/2:1	DT885	DAU2	3	5 minute	10 minute	15 minute
Concept	DCC	2:1:2	DT885	DFX7	2	4 minute	6 minute	10 minute
Concept	DCC	2:1:1	DT885	DU5	2	5 minute	15 minute	20 minute
Concept	DCC	2:1:2	DT885	DFX11	2	5 minute	12 minute	17 minute

Name	PPG Code	Mix proportion	Reducer	Hardener	Surfacer #	Pre-Heating Time	Baking Time	Total Time (Minute)
Primer	DP	1:1		401	2	4 minute	6 minute	10 minute
Primer	DPW1832	RTS			1	3 minute	5 minute	8 minute
Primer	DPW1834	RTS			1	3 minute	5 minute	8 minute
Surfacer	K36	5:1:1	DT870	K201	3	3 minute	6 minute	9 minute
Surfacer	DCP21	4:1:4	DT870	DCP212	3	4 minute	8 minute	12 minute
Surfacer	K200	4:1:1	DT870	K201	3	3 minute	6 minute	9 minute

HEATTECK SOLUTION

www.heattecksolution.com

Name	PPG Code	Mix proportion	Reducer	Hardener	Surfacer #	Pre-Heating Time	Baking Time	Total Time
Concept	DCC	4:2:1	DT885	DCX61	2	5 minute	25 minute	30 minute
Clear	DC1100	1:1		DC1275	3	5 minute	12 minute	17 minute
Clear	DAU82	1:1/2:1	DT885	DAU2	3	5 minute	12 minute	17 minute
Clear	DCU2020	2:1:1	DT885	DU5	2	5 minute	15 minute	20 minute
Clear	DCU2020	2:1:2	DT885	DFX7	2	4 minute	6 minute	10 minute
Clear	DCU2001	2:1:1	DT885	DU5	2	5 minute	20 minute	25 minute
Clear	DCU2001	2:1:2	DT885	DFX7	2	5 minute	7 minute	12 minute
Clear	DCU2002	4:1:1	DT885	DCX61	2	5 minute	25 minute	30 minute
Clear	DCU2002	5:1:5	DT885	DFX11	2	5 minute	10 minute	15 minute
Clear	DCU2021	4:1:1	DT885	DCX61	2	5 minute	25 minute	30 minute
Clear	DCU2021	5:1:5	DT885	DFX11	2	5 minute	10 minute	15 minute
Clear	DCD35	2:1		DU5	2	5 minute	25 minute	30 minute
Clear	DCD35	2:1:2	DT885	DFX7	2	5 minute	10 minute	15 minute
Clear	DCU2035	4:1:2	DT885	DCX61	2	10 minute	25 minute	35 minute