i D E N T I F Y
DAMAGED ImagOn FILM

HEAT DAMAGED FILM
Introduction

ImagOn film should only be used for Intaglio-Type (non-etch) plate-making. If your goal is to photo etch a copper plate do not use ImagOn film, it is too thick to give a good photo etch stencil. Use Z*acryl thin photopolymer film instead.

ImagOn photopolymer film has been successfully and extensively used by printmakers around the world for over 20 years. In the beginning ImagOn was relatively easy to use however as we learnt more about its extraordinary technical abilities ImagOn techniques became more complex and difficult.

One thing that has emerged is a number of inexperienced printmakers that do not have a level of technical skill to use ImagOn successfully. They rarely look at instructions and some blatantly use fluorescent light sources despite all kinds of warnings not to do so as this will produce inferior ImagOn plates. Then they go online to blame their lack of technical knowledge and experience on the ImagOn film.

Furthermore they do not heed dire heat exposure warnings that ImagOn will melt at extended periods in temperatures above 75˚F, like chocolate it has a low melting point. They leave ImagOn out to heat damage it and then return it to the place that they purchased blaming the film for miraculously heat damaging itself and wanting a refund. This is of course frustrating from not only the manufacturers and distributors. The good news is that although ImagOn can get severely damaged through heat exposure it can still be successfully used.

Following is a technical analysis of 6 returned rolls of ImagOn film and a look at how these films compared with undamaged film.

WHAT DAMAGES IMAGON THE MOST

The two biggest factors that can damage ImagOn is either UV light exposure that can effectively render the film useless. Fortunately this rarely happens.

The second and by far the most prevalent is heat exposure for temperatures above 75˚F. The degree of damage can vary enormously without much damage transferring to the final print.

There is a third and extremely rare kind of visual floor in the roll of ImagOn that run the length of the roll in the form of fine parallel lines about 1/16th inch that were probably caused during manufacture from feed rollers. This damage is so slight that it is virtually impossible to photograph and Never results in a damaged plate. It is an anomaly! More resources below:

http://www.nontoxicprint.com/beginnerscompendium.htm

Following is the analysis of the 6 rolls of ImagOn returned to two European distributors.
Identify Damaged ImagOn Film

Sample No.1

The Sample No.1 ImagOn roll shows dark exposed areas where this printmaker left the roll of ImagOn out under a light source (probably ambient room light) strong enough or long enough to partially expose it. If this roll was left out for a longer period, more of it would be light damaged. If the test print was made with the partially exposed film it will show up as an over exposed image. This roll of film could be saved by simply cutting off about 9” from the damaged end of the roll.

Sample No.1A shows plate with undamaged part of ImagOn film to be compared with Sample Plate 1B normal ImagOn plate.

Sample Plate 1B normal ImagOn plate with undamaged ImagOn film.
Compare proof results

Sample No.1A proof print

Print from Sample No.1A plate shows a slightly better tonal range probably due to a very slight exposure that will increase tonal range of an image. This is a printing industry technique called Flasing where a light sensitive plate is given a very small amount of exposure to a Quartz halogen light before it is developed.

Sample Plate 1B proof print

Print from Sample Plate 1B plate with the normal, undamaged ImagOn roll film.
Identify Damaged ImagOn Film

Sample No.2

The Sample No.2 ImagOn roll shows no damage except showed a little darker blue color than the normal film. This indicates that the film is between 1 and 3 years old.
Compare proof results

**Sample** No.2A proof print

Print from Sample No.2A plate shows No Damage.

**Sample** Plate 2B proof print

Print from Sample Plate 2B plate with the normal, undamaged ImagOn roll film.
Identify Damaged ImagOn Film

Sample No.3

The Sample No.3 ImagOn roll shows severe heat damage. The severity of heat damage can be gauged by unrolling the roll of film as each layer of film offer a little protection from heat damage. Despite this damage the photopolymer film is still light sensitive and can be used successfully for most plate-making applications.

Sample No.3 shows plate with damaged part of ImagOn film to be compared with Sample Plate 3B normal ImagOn plate.

Sample Plate 3B normal ImagOn plate with undamaged ImagOn film.
Compare proof results

**Sample No.3A proof print**

Print from Sample No.3A plate shows damage that can be seen from insert enlargement.

**Sample Plate 3B proof print**

Print from Sample Plate 3B plate with the normal, undamaged ImagOn roll film.
Identify Damaged ImagOn Film

Sample No.4

The Sample No.4 ImagOn roll shows small parallel marks where the top Mylar protection sheet has slightly lifted from the ImagOn emulsion. This was caused because of a metallic Heat Shield bubble wrap foil that was placed inside the ImagOn roll to add extra heat protection to the ImagOn film. When the ImagOn roll is laid down it rests on this Heat Shield bubble wrap that causes this slight Mylar lifting. This however does in NO way negatively effect the performance of the ImagOn as this Mylar protection sheet must eventually be removed to develop it.

To avoid this “dimpling” of the top Mylar store the roll of ImagOn vertically resting on the tube end.

Sample No.4A shows plate with “dimpled” part of ImagOn film to be compared with Sample Plate 4B normal ImagOn plate.

Sample Plate 4B normal ImagOn plate with undamaged ImagOn film.
Compare proof results

**Sample No.4A proof print**

Print from Sample No.4A plate shows No Damage whatsoever.

**Sample Plate 4B proof print**

Print from Sample Plate 4B plate with the normal, ImagOn roll film.
Identify Damaged ImagOn Film

Sample No.5

The Sample No.5 ImagOn roll shows small parallel marks where the top Mylar protection sheet has slightly lifted from the ImagOn emulsion. This was caused because of a metallic Heat Shield bubble wrap foil that was placed inside the ImagOn roll to add extra heat protection to the ImagOn film. When the ImagOn roll is laid down it rests on this Heat Shield bubble wrap that the causes this slight Mylar lifting. This however does in NO way negatively effect the performance of the ImagOn as this Mylar protection sheet must eventually be removed to develop it.

To avoid this “dimpling” of the top Mylar store the roll of ImagOn vertically resting on the tube end.
Compare proof results

Sample No.5A proof print

Print from Sample No.5A plate shows NO Damage.

Sample Plate 5B proof print

Print from Sample Plate 5B plate with the normal, ImagOn roll film.
Identify Damaged ImagOn Film

Sample No.6

The Sample No.6 ImagOn roll shows first stages of heat damage where the damage is uniform. Generally if you unroll the film the damage gets less and less with each layer peeled back.

Heat damage also makes the film emulsion darker which can easily be seen opposite.

Heat Damage can be totally avoided by storing ImagOn rolls in the studio supply refrigerator or by keeping it out of temperatures of 75°F and above.

Sample No.6A shows plate with damaged part of ImagOn film to be compared with Sample Plate 6B normal ImagOn plate.

Sample Plate 6B normal ImagOn plate with undamaged ImagOn film.
Compare proof results

**Sample No.6A proof print**

Print from **Sample** No.6A plate shows NO Damage.

**Sample Plate 6B proof print**

Print from **Sample** Plate 6B plate with the normal, ImagOn roll film.
Conclusion

**ImagOn film should only be used for Intaglio-Type (non-etch) plate-making. If your goal is to photo etch a copper plate do not use ImagOn film, it is too thick to give a good photo etch stencil. Use Z*acryl thin photopolymer film instead.**

From over 22 years of working with ImagOn film I have been answering questions from printmakers on what went wrong with their ImagOn plate-making and 95% of the time it is user error. When something goes wrong many printmakers are quick to blame the film where in fact it was their lack of technical experience or refusal to read instruction carefully that leads to problems. I would say that the largest percentage of technical problems revolves around exposure units and no matter how many time I say or write that **UNDER NO CIRCUMSTANCES WILL FLUORESCENT EXPOSURE LIGHT SOURCES WORK FOR IMAGON** there is always that Maverick printmaker that thinks they can get it to work and in the end blame the ImagOn when it doesn’t.

As far as damage goes the only way to “kill” ImagOn is to expose it directly to strong UV light source. Once exposed it cannot be used. Fortunately this is a rare problem. One printmaker however left ImagOn out in room light as seen in Sample 1. This roll of film was left out in a studio for an extended period of time under what I presume to be fluorescent tube lights.

This light source does emit a small volume of UV light that did eventually expose this outside layer of ImagOn film. Most of this roll of film could be salvaged by cutting about 10” from this roll and using the rest of the roll.

As far Heat Damaged film most of the time it can be successfully used depending on the nature of the image used.

The fact of the matter is that no distributor sells heat damaged film. There are instances where ImagOn has been delivered to an address in a hot climate and left to bake in the Sun. That’s the nature of Summer deliveries. All could be avoided by only ordering ImagOn when the daytime temperature is below 75˚F.

Takach Press in New Mexico go to extra lengths to insulate and add a cold pack to ImagOn deliveries to hot locations. Using next day air services also decreases the potential time a delivery sits in a truck in the Summer heat.

Once you get a delivery of ImagOn the best way to ensure that it will be pristine is to store it in a studio refrigerator allocated for photo printmaking and inkjet supplies.
Work with Damaged ImagOn Film

Sample No.1 print by Dalton Ryan

The Sample No.1 print shows a print by Dalton Ryan who left a roll of ImagOn in a unairconditioned storage pod where the Summer heat reached well over the 110’F mark for several weeks that caused huge heat damage to his ImagOn film.... regardless he went on to make striking prints with this damaged film.
Work with Damaged ImagOn Film

Sample No.2 print by Dalton Ryan

The Sample No.2 print shows severe damage at the edge of the film where there is no image. This damage blends in with the image and in fact adds a visual striking element to this Intaglio-Type print.