

Tech Tip 11

Troubleshooting

Troubleshooting Photopolymer Platemaking and Printing Problems

MacDermid photopolymers are manufactured to provide consistent, satisfactory results in platemaking and on press. Problems in plate performance can usually be traced to changes in platemaking conditions or press techniques. The Troubleshooting Guide will help you identify the source of problems, if they do arise, and suggest possible solutions. Please note that a given problem may be caused by a combination of factors; e.g., a “wavy line” can be caused by the combination of inadequate exposure and long washout time.

MacDermid has set up a TOLL-FREE phone number for Technical Service. For prompt, expert help call 800.348.7201 (in Georgia, call 404.699.3375). For guidance in selecting the right product for your applications, ask your MacDermid Sales Representative

PLATEMAKING PROBLEMS		
Problem	Probable Cause	Refer to Tech Tip #
Image not sharp	Face exposure too long Negative out of contact Low density negative Low matte film	2 , 4
Reverse fill-in	Face exposure too long Low density negative Insufficient washout	2 , 4 , 6
Lines missing or weak	Face exposure too short Back exposure too short Drying time too short Brush pressure too heavy Washout time too long	4 , 5 , 6 , 7
Shallow relief	Back exposure too long Washout too short Low density negative	4 , 6
Uneven thickness	Drying time too short Washout too long Trash on back of plate Raw plates handled carelessly Raw plates not stored properly	1 , 6 , 7 , 10



Incomplete washout	Spent developing bath Bath mixture not correct Brush setting too light Plate exposure too long Spray nozzle plugged (if applicable)	4 , 5 , 6 , 7
Tacky plates	Weak finishing lamps or solution Finishing times too short Inadequate plate rinsing or wiping Plates not washed out completely Drying time too short	5 , 7
Orange peel	Plate not rinsed or blotted Incorrect mixture of washout solvent Washout time too long Underexposed plate Poor plate handling techniques	4 , 7 , 10
Small holes or depression in solid copy	Dirt on negative or plate Careless handling of unexposed polymer	10
Plate cracks when flexed	Finishing times too long Post exposure too long Plates exposed to ozone	7 , 11

ON-PRESS AND FINISHED PLATE STORAGE PROBLEMS		
Problem	Probable Cause	Refer to Tech Tip #
Uneven printing	Plate cylinder not set correctly Plates not uniform (See Platemaking) Mounting tape not uniform Excess cylinder run-out	1
Heavy printing, at start-up	Uneven plate mounting Printing pressure set too heavy Anilox pressure set too heavy Ink viscosity too high Anilox roll too coarse	1
Heavy printing, during run	Ink drying too fast Ink viscosity too high Printing pressure too high Anilox set too heavy	10



	Plate swell	
Plates print with mottle	Ink viscosity too low Ink drying too fast Plate overfinished Orange peel (see Platemaking)	7
Plate transfers too little ink	Ink viscosity too low Plate overfinished Metering roll set too light Printing pressure too light Anilox ruling too fine	7
Plate edges lift during run	Plate back not clean Mounting tape tack too low No edge sealant Excessive washup solution used Shallow plate relief Plate not precurved for small cylinders	1
Misregister or wrong print length	Plate drying temperature too high or time too long Mounting tape thickness not the same Plates mounted incorrectly Negatives distorted incorrectly Negatives misregistered	1 , 2
Plate becomes tacky during run	Incompatible ink Incompatible washup solution Post exposure too brief Insufficient finishing	7 , 8 , 10
Plate delaminates during run	Ragged trim edge Impression set too high Careless plate handling	1
Plate cracks during storage	Ozone levels too high Not stored away from light Incompatible cleaning solvent	8 , 10 , 11

