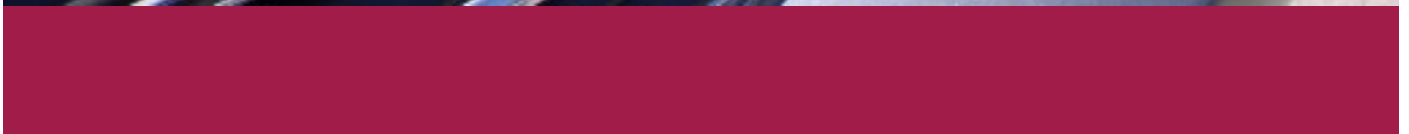




Electronic Materials

Plating on Plastics

Metallization



ABS, ABS/PC BLENDS (<50% PC)

Process	Time/min	Temp/°C
CONDITIONER PM-900 (Option)	1–5	45–55
ETCH PM-940	6–15	62–66
NEUTRALIZER PM-954	1.5–3	40–60
CATALYST Predip	1–3	25–30
CATAPOSIT™ PM-959	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-980 Electroless Nickel	6–15	30–36

Two counter flow rinses are recommended between each process step, except after the chrome etch PM940, where 3–5 rinses are required.

Alternative process, using ammonia and lead free electroless nickel

Process	Time/min	Temp/°C
CONDITIONER PM-900 (Option)	1–5	45–55
ETCH PM-940	6–15	62–66
NEUTRALIZER PM-954	1.5–3	40–60
CATALYST Predip	1–3	25–30
CONDUCTRON™ DP Activator	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-988 Electroless Nickel	6–15	30–36

ABS, ABS/PC Blends (> 50% PC)

Process	Time/min	Temp/°C
CONDITIONER PM-921	3–10	25–55
ETCH PM-940	10–20	62–66
NEUTRALIZER PM-954	1–5	40–60
CATALYST Predip	1–3	25–30
CATAPOSIT™ PM-959	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-980 Electroless Nickel	6–15	30–36

Two counter flow rinses are recommended between each process step, except after the chrome etch PM940, where 3–5 rinses are required.

Alternative process, using ammonia and lead free electroless nickel

Process	Time/min	Temp/°C
CONDITIONER PM-921	3–10	25–55
ETCH PM-940	10–20	65–75
NEUTRALIZER PM-954	1–5	40–60
CATALYST Predip	1–3	25–30
CONDUCTRON™ DP Activator	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-988 Electroless Nickel	6–15	30–36

Polyphenylene Oxide

Process	Time/min	Temp/°C
ETCH PM-940	6–15	60–75
NEUTRALIZER PM-954	1.5–3	40–60
CATALYST Predip	1–3	25–30
CATAPOSIT™ PM-959	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-980 Electroless Nickel	6–15	30–36

Two counter flow rinses are recommended between each process step, except after the chrome etch PM940, where 3–5 rinses are required.

Alternative process, using ammonia and lead free electroless nickel

Process	Time/min	Temp/°C
ETCH PM-940	6–15	60–75
NEUTRALIZER PM-954	1.5–3	40–60
CATALYST Predip	1–3	25–30
CONDUCTRON™ DP Activator	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-988 Electroless Nickel	6–15	30–36

Polycarbonate

Process	Time/min	Temp/°C
CONDITIONER PM-921	3–10	25–55
CUPOSIT™ Z	10–20	75–95
CATALYST Predip	1–3	25–30
CATAPOSIT™ PM-959	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-980 Electroless Nickel	6–15	30–36

Two counter flow rinses are recommended between each process step, except after the chrome etch PM940, where 3–5 rinses are required.

Alternative process, using ammonia and lead free electroless nickel

Process	Time/min	Temp/°C
CONDITIONER PM-921	3–10	25–55
CUPOSIT™ Z	10–20	75–95
CATALYST Predip	1–3	25–30
CONDUCTRON™ DP Activator	2–4	25–45
ACCELERATOR PM-964	1–4	38–55
NIPOSIT™ PM-980 Electroless Nickel	6–15	30–36

Polyetherimide

Process	Time/min	Temp/°C
CONDITIONER PM-925	5–15	75–85
CIRCUPOSIT™ PROMOTER 3308	10–30	75–85
CIRCUPOSIT™ NEUTRALIZER 3314	5–7	20–25
CIRCUPOSIT™ Conditioner 3320A	5–8	20–30
CATAPREP™ 404 Pre-Dip	1–3	20–25
CATAPOSIT™ 44 Catalyst	4–5	
ACCELERATOR 960	1–5	20–30
CIRCUPOSIT™ 3350-1 Electroless Copper	25–35	45–50

Two counter flow rinses are recommended between each process step.

Alternative process, using full build electroless copper

Process	Time/min	Temp/°C
CONDITIONER PM-925	5–15	75–85
CIRCUPOSIT™ PROMOTER 3308	10–30	75–85
CIRCUPOSIT™ NEUTRALIZER 3314	5–7	20–25
CIRCUPOSIT™ Conditioner 3320A	5–8	20–30
CATAPREP™ 404 Pre-dip	1–3	20–30
CIRCUPOSIT™ 44 CATALYST	4–5	40–46
ACCELERATOR PM-960	1–5	20–30
CIRCUPOSIT™ 71 Electroless Copper	To Target	48–52

Liquid Crystal Polymer (LCP)

Process	Time/min	Temp/°C
CONDITIONER PM-925	10–30	75–90
NEUTRALIZER PM-954	5–7	20–25
CIRCUPOSIT™ Conditioner 3320A	5–8	20–30
CATAPREP™ 404 Pre-Dip	1–3	20–25
ACCELERATOR PM-960	1–5	25–30
CIRCUPOSIT™ 3350-1 Electroless Copper	25–35	45–50

Two counter flow rinses are recommended between each process step.

Alternative process, using full build electroless nickel

Process	Time/min	Temp/°C
CONDITIONER PM-925	10–30	75–90
NEUTRALIZER PM-954	5–7	20–25
CIRCUPOSIT™ Conditioner 3320A	5–8	20–30
CATAPREP™ 404 Pre-dip	1–3	20–25
ACCELERATOR PM-960	1–5	25–30
CIRCUPOSIT™ 71 Electroless Copper	To Target	48–52



LDS - MID

Process	Time/min	Temp/°C
Laser Structure		
Ultrasonic Rinse		
CIRCUPOSIT™ 3350-1 Electroless Copper	To Target	45–50

Alternative process, using full build electroless copper

Process	Time/min	Temp/°C
Laser Structure		
Ultrasonic Rinse		
CIRCUPOSIT™ 71 Electroless Copper	To Target	48–52

The Dow Chemical Company

Midland, MI 48674

US

Toll Free

800-832-6200

International

Europe / Middle East

+ 41-41-259-4444

Japan

+ 813-5213-2910

Asia

+852 -2680-6888

www.dowelectronicmaterials.com

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