COLUMBIA® CHEMICAL
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TROUBLE SHOOTING GUIDE

FOR COLGLO 750, 550, 450-MA, 441, 300, 255, 235

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PROBLEM	CAUSE	SOLUTION
Overall dullness	Low Brightener	Add 0.05% to 0.1% by volume Colglo Brightener
	High bath temperature	Cool bath to 85° F (30° C)
	Low bath temperature	Heat bath to 85° F (30° C)
	Organic contamination	Treat bath with 1 to 2 lbs. Potassium Permanganate/1,000 gal. (0.12 to 0.24 kg/1,000 liters)
Mid Current density band/dullness	Brightener imbalance/ brightener overload	Stop all additions of Colglo Brighteners and substitute with Colglo 6000 and Colglo LCD Booster
		Treat bath with 1 to 2 lbs. Potassium Permanaganate/1,000 gallons 0.12 to 0.24 kg/1,000 liters)
Low current density dullness	High bath temperature	Cool bath to 85° F (30° C)
	Low cyanide:zinc ratio	Add sodium cyanide to increase the cyanide:zinc ratio to 2.75-3.0
	Part configuration with extremely deep recessed areas	In addition to Colglo Brightener, use Colglo LCD Booster
High current density dullness/burning	Lead or cadmium contamination	Add 0.5% to 1.0% Liquid Polysulfide Purifier (dilute with water before adding)
	Extremely low brightener	Add 0.1% to 0.2% Colglo Brightener
	Low bath temperature	Heat bath to 85° F (30° C)
Dark low current density staining after chromate	Metallic contamination (Nickel, lead, copper)	Treat bath with 1 lb. zinc dust/1,000 gallons (0.12 kg/1,000 liters) to remove 10 ppm of metallic contaminant
Poor covering powder (thin LCD plate)	Low cyanide:zinc ratio	Add sodium cyanide to increase the cyanide:zinc ratio to 2.75-3.0
	High bath temperature	Cool bath to 85° F (30° C)

PROBLEM	CAUSE	SOLUTION
Blistering and skip plate	Chromium contamination (>15 ppm)	Treat bath with 0.25 lbs. Sodium Bisulfate/ 1,000 gallons (30 grams/1,000 liters) 15 ppm of Chromium
	High Sodium Carbonate (>12 opg 90 g/l)	Freeze-out carbonates
		Cut bath by 10% to 25%
	Extremely high brightener	Treat bath with 1 to 2 lbs. Potassium Permanganate/1,000 gallons (0.12 to 0.24 kg/1,000 liters)
	Poor cleaning	Charge-up or change the soak and electrocleaner
Low bath efficiency/ slow plating speed	High cyanide:zinc ratio	Adjust cyanide:zinc ratio to 2.75
	Low bath temperature	Heat bath to 85° F (30° C)
	Low Caustic Soda	Increase to 10 opg (75 g/l)
	High Sodium Carbonate (>12 opg/90 g/l)	Freeze-out carbonates
		Cut bath by 10% to 25%
Poor bath conductivity/ high voltage	Low Caustic Soda	Increase to 10 opg (75 g/l)
	Low bath temperature	Heat bath to 85° F (30° C)
Strong ammonia odor at anodes due to oxidation of cyanide and brightener	High steel anode area/ low zinc anode area	Increase zinc anode area