

Solutions for Coloring Metals

Finishing

COLORING SOLUTIONS

Applied to silver

Grey: small quantity platinum chloride in alcohol

Dark grey: household bleach

Black: 20g liver of sulfur, 20g ammonia, 1l water lampblack and beeswax rubbed into deep grooves

Steel blue: heat with chunks of sulphur in a covered can (*caution: toxic fumes require ventilation*)

Reddish-brown: cold solution of 150g barium sulphide in 300ml of water

Gold color: cold solution of 1g barium sulphide in 200ml of water, or warm solution of 1g ammonium sulphide in 200ml of water

Green Color: 1 part iodine, 3 parts hydrochloric acid, 3 parts water. Add iodine to boiling water, then acid. Use hot

Varied colors: 25g liver of sulphur, 10g bicarbonate of soda. 1l of water. Apply under hot running water.

Purple: several dippings in hydrochloric acid. Dip in ammonia. Seal surface with light oil or wax.

Applied to gold

Black: platinum chloride in alcohol, or liver of sulphur painted (hot) onto surface

Blue or black: iodine painted on surface.

Applied to copper

Black: barium sulphide or ammonia sulphate, used warm

Purple-red: heat to red and drop in boiling water

Brown: 1 part copper sulphate, 2 parts water. Dip in hot solution after scouring with pumice; repeat if necessary

Brown-black: 15-20g liver of sulphur, 2-3g ammonium carbonate, 100ml water

Olive green: 1 part iron perchlorate, 2 parts water

Applied to brass

Green: 500ml vinegar, 7.5g ammonium chloride, 7.5g salt, 15ml ammonia

Dark green: paste of 1 part copper sulphate, 1 part zinc chloride, 1 part water. Apply to metal, let dry and wash off; expose to sunlight.

Sage green: 1.5g copper nitrate, 177ml water. Paint hot solution on chemically clean metal surface

Black: 10g copper carbonate, 100g ammonia, 15ml water

Yellow to red: 60g copper carbonate, 30g caustic soda, 296ml distilled water. Dip in hot or cold solution.

Applied to silver, copper, bronze

Charcoal grey: pinch of potassium sulphide, 118ml distilled water. Dip in hot or cold solution.

Blue-black: pinch of potassium sulphide, one drop ammonium chloride, 118ml distilled water

Applied to bronze

Black: 30g ammonium chloride, 30ml distilled water. Apply cold solution with brush

Applied to copper alloys

Olive green: 30g ammonium chloride, 30ml distilled water. Apply hot solution with brush.

Applied to silver, copper, brass

Dead black: 1g ammonium sulfide, 207ml distilled water. Use hot

Applied to brass, carbon steel

Blue: 120g lead acetate, 240g sodium thiosulphate, 120g acetic acid, 3784ml distilled water

Applied to copper, silver, gold, brass

Sodium thiosulphate 120.0 g, Lead acetate 12.5 g, Distilled water 0,5l. Immediately before use, add 1,5g citric acid.

SEALING COLORS

Rub beeswax or light oil on colored surfaces.