ENE Black Immersion D 6

ENE Black Immersion D 6 is a liquid, room temperature metal antiquing formulation for copper, brass, and munz. It produces light to dark brown and black color range.

Features & Benefits

US 5, US 10B, US 20 finish	Matching of hardware finishes
Uniform deposition coating	Easily relieved to get varying levels of worn antique appearance
ROHS and REACH compliant	Product good for use in Europe

Operating Conditions

Concentration	5% – 50% More dilute solution produces light tones
Temperature	75°F – 95°F
Immersion time	30 sec – 3 min Depending on concentration and tone desired
Equipment	Plastic or fiberglass tanks

<u>Controls</u>
Dip may be controlled by small additions (1 to 2 fluid ounces/gallons) of concentrated ENE Black Immersion D 6 solution. Additions should be made when the prepared solution slows down or does not develop satisfactory color. Solutions of ENE Black Immersion D 6 may be filtered to remove accumulated suspended material and to clarify the solution, should this be necessary. The life of the ENE Black Immersion D 6 solution is almost indefinite and maintenance additions of the ENE Black Immersion D 6 concentrate should be adequate to provide consistent work quality. However, conditions may arise because of excessive carry-in of contaminants, so that the performance of the ENE Black Immersion D 6 solution cannot be restored by additions of concentrate. At this point, the ENE Black Immersion D 6 solution may require complete replacement.

Test Kit Method

Equipment required
4 oz mixing bottle
2 syringes (5 mL)
2 syringes (3 mL)

Chemicals required
2 X 2 oz 0.5 N Sodium Thiosulfate Solution
4 oz 6 N Hydrochloric Acid
8 oz 15 %w/w Potassium Iodide Solution
4 oz 2 % Starch Indicator

1. Transfer a 5 mL sample of the production bath into the mixing bottle.
2. Dilute with 30 mL water.
3. Add 2 mL 6N Hydrochloric Acid.
4. Add 4 mL of the 15% by weight Potassium Iodide solution.
5. Add 2 mL of starch solution. The solution will become a dark blue to almost black color
6. Add the 0.5 N Sodium Thiosulfate solution, from the dropping bottle -drop by drop- counting the drops while swirling the flask. The end point is marked by a sudden change in color from dark black to light brown.
7. Record the number of drops used.

Calculation

$$Concentration = \#\ Drops\ 0.5\ N\ Na_2S_2O_3 \times 0.37$$

Waste Disposal

Spent ENE Black Immersion D 6 solutions and effluents can be treated by reducing the soluble Selenium compounds to elemental Selenium. Our Aquapure will be able to assist in this area.

Caution

ENE Black Immersion D 6 solutions contain soluble Selenium compounds. Solutions of ENE Black Immersion D 6 should not be overheated since the vapors are toxic. If taken internally, ENE Black Immersion D 6 in large dosages may be poisonous.

Use ENE Black Immersion D 6 solution only with adequate ventilation. Avoid contact with skin and eyes. Use protective clothing when handling this material. In case of contact with skin, affected area should be thoroughly flushed with water; for eyes, flush with clean water for at least 15 minutes and obtain medical attention.

Avoid contact of ENE Black Immersion D 6 with concentrated acids or oxidizing materials.

WARRANTY: THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.

Our people. Your problem solvers.

For more information on this process please call us at
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