Die-Brite 54

Die-Brite 54 is an acidic liquid, chromate free product for chemical polishing, brightening and conditioning the surface of zinc die castings for subsequent operations such as electroplating, blacking and chromate conversion coating.

Note: Die-Brite 54 will not brighten or polish the Zamak 5 die cast alloy. Die-Brite 54 will blacken this alloy.

Features & Benefits

Reduces rejects	Higher productivity, lower cost
Replace electro cleaner and acid	Shorter cycle, higher throughput; lower cost

Operating Conditions

Die-Brite 54 is a single package product formulated for operations, which process zinc die castings. Die-Brite 54 solution functions in the following manner: the first 10 to 30 seconds of immersion cleans and conditions the zinc die cast surface (removal of oxides embedded particles, residues, etc.). In the final 30 to 75 seconds, the Die-Brite 54 solution begins to chemically polish and brighten the casting.

Concentration	Use as received-full strength
Temperature	70°F – 100°F (21°C – 37°C)
Immersion time	10 – 75 sec
Agitation	Recommended- movement of work or solution will decrease time to achieve polish
Equipment	Tanks should be constructed of Polyethylene, Polypropylene or rigid PVC. Racks may be coated or conventional plastisol. Rack tips stainless steel tips or phosphor bronze tips. However, periodic examination is recommended

	to determine the long-term tolerance.
Cooling/heating coils	Teflon exchangers (heat and cool)
Ventilation	Suggested- or use in well ventilated area when the immersion time ranges from 10 – 20 sec and the workload is approximately 1 – 2 ft^2/rack, cooling coils will not be required.

A suggested cycle
1. Soak clean (if required) cleaners cb-1, 187-b, or s-982
2. Cold water rinse
3. 10 to 75 sec. Immersion in Die-Brite 54 at 70°F to 100°F (21°C to 37°C)
4. Cold water rinse
5. Cold water rinse
6. Copper strike

Die castings must be free of oils (mold release compounds), quench medium and buffing compounds, before immersing in Die-Brite 54 solution.

Control
Die-Brite 54 should be used until it becomes too slow - then discard.

Waste Disposal

Die-Brite 54 solution should be neutralized to a pH between 6.0 to 8.0 with either soda ash or caustic soda. Since Die-Brite 54 is a strong acid the method which should be followed to achieve this is:

1. Dilute Die-Brite 54 solution with 2 parts water.
2. Slowly add the caustic or soda ash - stirring the solution slowly.

Wear protective clothing, goggles and gloves when neutralizing Die-Brite 54 solution.

Once the solution has been neutralized, pump the liquid portion to a settling tank. In order to be completely informed on the latest regulations for your area, please contact the local authorities.

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