

Black-Magic® RT Predip S

A surface conditioner/activator used prior to the application of Black Magic RT S finishes on iron and steel.

Features & Benefits

Activator for difficult to blacken surfaces	Blackened steel surfaces
Conditioner to enhance depth of black	Eliminates iridescent finishes

Operating Conditions

Black-Magic RT Predip S liquid concentrate is normally diluted to 10% by volume in water and used at temperatures of 75°F to 120°F.

Equipment

Acid-resistant Polypropylene, PVC, plastic-coated or rubber-lined tanks, hooks, baskets, and tumbling barrels must be used with the Black-Magic RT Predip S solutions. A stainless-steel tank is permissible for the Black-Magic RT Predip S solutions. However, stainless steel cannot be used for baskets, hooks or barrels which will be immersed in the Black-Magic RT Predip S blackening solutions.

Surface Preparation

Surfaces to be conditioned and/or activated prior to blackening must first be thoroughly cleaned with an appropriate Hubbard-Hall cleaner. The type and degree of surface soil will determine the length of time required for cleaning and the cleaning temperature.

Surface rust, if present, must be removed following the cleaning step. Lightly rusted surfaces should be de rusted with a solution of the appropriate Hubbard-Hall Acid Salt.

Typical Finishing Procedure

1. Thoroughly clean (and de rust, if necessary).
2. Water rinse
3. Black-Magic RT Predip S
4. Water rinse
5. Blacken with the appropriate Black-Magic RT S
6. Water rinse
7. Seal with the appropriate Metal Guard sealer

Please refer to the appropriate Black-Magic RT S instruction sheet for more complete processing instructions.

Solution Makeup, Replenishment, and Maintenance

The preferred concentration for a Black-Magic RT Predip S working solution is 10% by volume in water. Prior to charging a production tank, some experimentation should be done with properly prepared sample parts, using dilutions of 5% to 10% by volume and operating temperatures of 75°F to 120°F.

Immersion times should be varied from 1 to 5 minutes to determine the best parameters to obtain the ultimate depth of black.

Test Kit Method

1. Transfer 5 mL of Black-Magic RT Predip S working solution to the mixing bottle with a 5 mL syringe.
2. Add 25 mL distilled water.
3. Add 8 to 10 drops Phenolphthalein indicator to the sample solution in the mixing bottle.
4. Using the 2 oz dropping bottle containing 1.0 N Sodium Hydroxide, add drops to the sample solution in the mixing bottle with constant swirling until the solution turns a faint permanent pink color. Count the drops as they are being added.
5. Record the number of drops used.

Calculation

$$\text{Concentration (fl. oz/Gal)} = \# \text{ Drops } 1.0 \text{ N NaOH} \times 0.80$$

-OR-

$$\text{Concentration (\%v/v)} = \# \text{ Drops } 1.0 \text{ N NaOH} \times 0.60.$$

Caution

The Black-Magic RT Predip S concentrate and working solutions are mildly acidic. Avoid contact with eyes, skin and clothing. Wear eye protection (glasses, goggles, or face shield), protective gloves and rubber apron when mixing solutions and while working with the solutions.

Avoid contact of Black-Magic RT Predip S concentrate and solution with alkali materials.

DO NOT MIX RT PREDIP S WITH ANY OTHER CHEMICALS OR SOLUTIONS.



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For more information on this process,
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