



PO Box 14 • Somerset, MA 02726
orders 1-800-2-BUY-DYE
technical support 508-676-3838
fax 508-676-3980
e-mail • promail@prochemical.com
www.prochemical.com

Coloring Paper Pulp using Diazol Direct Dyes

Please Read Directions Carefully Before Starting

*Our Diazol Direct Dyes are an excellent choice for coloring pulp. They are water soluble and have excellent light fastness on handmade paper. Always test before production runs for adhesion, coverage, washfastness and other specific requirements. For additional information visit our website at **www.prochemical.com**.*

- ✘ Wear rubber gloves, apron or old clothes.
- ✘ Utensils used for dyeing should never be used for food preparation.

Supplies

PRO Diazol Direct Dye
PRO Retayne

Procedure

1. Hydrate pulp in hot water that is above 125°F (52°C).

Note: For information on hydrating pulp contact your local papermaking supplier or local library for books on papermaking.

2. Per pound (454 gm) of dry pulp:

	Pale	Medium	Dark	Black
Diazol Dye powder	1 tsp (2.5 gm)	2 tsp (5 gm)	3 tsp (7.5 gm)	4 tsp (10 gm)
common table salt	3 Tbl (45 gm)	6 Tbl (90 gm)	9 Tbl (135 gm)	12 Tbl (180 gm)

When coloring hydrated pulp with mixer:

- ✓ Dissolve dye in one quart (1 liter) hot water and pour into pulp slurry while mixer is running.
- ✓ Pulp is left to beat for 10 to 15 minutes.
- ✓ Dissolve salt in one quart (1 liter) water and pour into pulp slurry, while mixer is running.
- ✓ Let stand 1 to 2 hours and test for bleed. If bleeding does not occur coloration is complete.
- ✓ If there is bleeding, add PRO Retayne (see Hint #1) diluted in one cup (250 ml) hot water, to the pulp, while mixer is running.
- ✓ Let stand for an additional 1 to 2 hours. For darker colors it is advantageous to let stand overnight for maximum absorption.
- ✓ Strain colored pulp and rinse by pouring several gallons (liters) of water through it.

When coloring hydrated pulp manually:

- ✓Put hydrated pulp into plastic barrel or garbage can with HOT water.
- ✓Dissolve dye in one quart (1 liter) hot water and pour into pulp slurry while mixer is running.
- ✓Let stand 15-20 minutes with occasional stirring.
- ✓Dissolve salt in one quart (1 liter) water and stir into pulp slurry.
- ✓Let stand 1-2 hours or overnight as needed, for maximum color absorption. Additions of Retayne may be necessary (see Hint #1)
- ✓After coloration is complete, strain and rinse as directed above.

HINTS:

1. It is not always necessary to add salt, if adding PRO Retayne. Salt and Retayne can be used in combination with each other or individually. A thorough rinse is necessary when using salt.

NOTE: As a rule, use as little PRO Retayne as possible to yield desired results. Begin by adding 1 Tbl (15 gm) per pound (454 gm) of dry pulp.

NOTE: Retention agents (Retayne) can have an adverse effect on light fastness of some of the dyes and is recommended only when necessary.

2. When coloring pulp in a kitchen blender mix in short bursts. Prolonged blending can have adverse effects on absorption of dye.

3. It is necessary to experiment with each color to find the appropriate combinations to successfully dye different types of paper pulp.