

Carriage House Paper

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INSTRUCTIONS FOR THE USE OF AARDVARK COLORS

Aardvark colorants were first developed by Carriage House Paper and are pigments formulated specifically for the coloring of paper pulp. They have been carefully selected for their coloring properties and excellent light fastness. Pigments are insoluble, finely ground particles which are deposited physically on the fiber, and must be held onto it by mechanical means. The pigment has no affinity to the material it is coloring, and requires the use of a binder. The Carriage House Studio recommends a retention agent, a cationic substance which will give the pulp a positive charge. The pigment dyestuffs tend to have a negative charge, and therefore will remain affixed to the pulp if the proper quantity of a cationic fixative has been added.

Method of Application

1. Make pulp

Directions given are in terms of coloring one pound (450 grams) of dry fiber or pulp. Weigh out the dry fiber and pulp it, (in a hydropulper, beater, blender, etc.) If you are using a blender and making many small batches of pulp, then put all the batches together in one large container. If you are coloring less than one pound, then use the measurements proportionately.

2. Add retention agent

Dilute the desired amount of retention agent in one pint (1/2 liter) of water, and stir it into the pulp. We usually do this operation, and all the succeeding steps, while our mixer is running continuously. However, it is quite successful to do manual mixing, particularly when coloring small quantities of pulp, using your hand, or other type of stirring rod..Mix thoroughly, for about 10 minutes.

3. Add pigment

Prepare the water dispersed pigment by first shaking the bottle well, as the pigment tends to settle. Measure the desired amount of pigment, put it into a beaker, add one pint (1/2 liter) of water, and stir thoroughly. Add the pigment to the pulp, while mixing or stirring; either keep your mixer running for around 15 minutes, or stir occasionally over that period of time. See if the pulp holds its color. If there is no bleed, or practically none, then the coloring procedure is finished, and you are ready for papermaking. You should not have to rinse the pulp with water. If a lot of colored water drains from the pulp, you may have added too much pigment or not enough retention agent. Allowing the pulp to sit overnight increases color saturation.

Specific Amounts

- Pigment Blue 15** (phthalocyanine)
 - 2 tbs. (27 grams) retention agent
 - 2 tbs. (27 grams) pigment
- Pigment Green 7** (phthalocyanine)
 - 3 tbs (50 grams) retention agent
 - 3 tbs (50 grams) pigment
- Pigment yellow 83** (diarylide-azo: orange-yellow)
 - 4 tbsp (60 grams) retention agent
 - 7 tsps.(35 grams) pigment
- Pigment yellow 74 (LF)** (arylide-azo: lemon yellow)
 - 4 tbs (60 grams) retention agent
 - 1 tbs (18 grams) pigment

5. **Pigment red 170**
4.5 tbs (70 grams) retention agent
8 tsps. (45 grams) pigment
6. **Pigment violet 19 - Quindo red** (quinacridone)
4.5 tbs. (70 grams) retention agent
8 tsps. (45 grams) pigment
7. **Pigment violet 23** (carbazole dioxazine)
8 tsps. (40 grams) retention agent
8 tsps. (40 grams) pigment
8. **Pigment black 7** (carbon)
4 tbs. (60 grams) retention agent
6 tbs. (90 grams) pigment Note: These amounts produce a deep black. For maximum saturation, leave overnight and water should run clear
9. **Pigment yellow 42** (iron oxide: ochre)
5 tbs. (75 grams) retention agent
4.5 tbs. (70 grams) pigment
10. **Pigment red 101** (iron oxide: mars red)
5 tbs. (75 grams) retention agent
6 tbs. (90 grams) pigment
11. **Pigment brown 6** (iron oxide: burnt umber)
5 tbs. (75 grams) retention agent
6 tbs. (90 grams) pigment
12. **Pigment white 6** (titanium dioxide)
2 tbs. (27 grams) retention agent
2 tbs. (27 grams) pigment

Suggestions and precautions

1. Always dilute a tiny amount of colorant or chemical when adding it to a very large amount of pulp. This ensures better dispersion.
2. If pigment dries onto the container or its lid, be sure that flakes of dry pigment do not fall into the jar or the pulp, as dried flakes of pigment can cause blotchy or mottled paper. If necessary, strain the pigment through a nylon stocking.
3. Use of sizing with pigments: if you are also using Carriage House sizing, we recommend following the coloring procedure first; when you obtain the intensity of color that you want, then add sizing.
4. Handle the colorants and other chemicals with care at all times. Observe the precautions listed on the labels. Do not ingest or inhale. Safety data sheets on each of the pigments are on file at the Carriage House and are available upon request. For more information on art hazards or safety, consult the Center for Occupational Hazards, 5 Beekman St., NYC, NY 10038
5. All Aardvark colorants have been personally tested by the Carriage House Studio. Aardvark Colors does not assume responsibility for unsatisfactory or harmful results incurred by users of these products or methods. Complete information on all these pigments, as well as other potential colorants, may be found in Color for the Hand Papermaker, a manual published by the Carriage House Press.