When to use photographs in lieu of patent drawings

Regarding photographs, the United States Patent & Trademark Office states the following:

(1) Black and white. Photographs, including photocopies of photographs, are not ordinarily permitted in utility and design patent applications. The Office will accept photographs in utility and design patent applications, however, if photographs are the only practicable medium for illustrating the claimed invention. For example, photographs or photomicrographs of: electrophoresis gels, blots (e.g., immuno-logical, western, Southern, and northern), auto-radiographs, cell cultures (stained and unstained), his-tological tissue cross sections (stained and unstained), animals, plants, in vivo imaging, thin layer chroma-tography plates, crystalline structures, and, in a design patent application, ornamental effects, are acceptable. If the subject matter of the application admits of illus-tration by a drawing, the examiner may require a drawing in place of the photograph. The photographs must be of sufficient quality so that all details in the photographs are reproducible in the printed patent.

(2) Color photographs. Color photographs will be accepted in utility and design patent applica-tions if the conditions for accepting color drawings and black and white photographs have been satisfied. See paragraphs (a) (2) and (b)(1) of this section.1

(a) Color. On rare occasions, color drawings may be necessary as the only practical medium by which to disclose the subject matter sought to be patented in a utility or design patent application or the subject matter of a statutory invention registration. The color drawings must be of sufficient quality such that all details in the drawings are reproducible in black and white in the printed patent. Color drawings are not permitted in international applications (see PCT Rule 11.13), or in an application, or copy thereof, submitted under the Office electronic filing system. The Office will accept color drawings in utili-ty or design patent applications and statutory inven-tion registrations only after granting a petition filed under this paragraph explaining why the color draw-ings are necessary. Any such petition must include the following:
   (i) The fee set forth in § 1.17(h);
   (ii) Three (3) sets of color drawings;
   (iii) An amendment to the specification to insert (unless the specification contains or has been previously amended to contain) the following language as the first paragraph of the brief description of the drawings:

Once you have established that photographs are appropriate for your subject matter, the photographs should be prepared in a certain manner. For a start, get the best quality photographs available. Photographs can be enhanced in many ways to get the best visual effect. Sometimes it's a simple solution like darkening or lightening them to make them more legible. If photographs are poor, much more work may be needed to make them legible. The photographs should be presented using the same position, margins, paper size and text requirements as you would for drawings. If photographs are dark, a white field should be used behind reference numerals to make them visible.

Photographs and drawings should not be combined in design patent applications. There is good reason for this. The introduction of both photographs and drawings would result in a high probability of inconsistencies between the corresponding elements on the ink drawings as compared with the photographs. Photographs for design patent applications should not include environmental structure but be limited to the design claim of the article.

If you file with photographs when drawings would have adequately depicted the subject matter, you could be required to convert the photographs to line art. When filing photographs, be sure to describe the images as photographs instead of drawings in the description. Photographs described as drawings could be rejected.

When you file with full color photographs, 3 sets are required. A patent search on the USPTO website will show the application with photographs as black & white images. You can get a copy of your patent application publication with full color photographs by request and payment of the necessary fee.

Here are various samples of subject matter that should be filed as photographs:
Conclusion:

Knowing when to file photographs will allow you to choose the best medium to display the item you are patenting. A competent drafting firm can enhance photographs and prepare them in a manner that will give you the best chance to avoid rejection and allow you to have the clearest most legible images throughout the life of your patent.

ENDNOTES

1. Appendix R Patent Rules, Title 37-Code of Federal Regulations Patents, Trademarks, and Copyrights §1.84 (b) (1) (2)
2. Appendix R Patent Rules, Title 37-Code of Federal Regulations Patents, Trademarks, and Copyrights §1.84 (a) (2)