



Dear Dr. Book

Dear Dr. Book,

On the back of the title page of a recently purchased novel, I noticed a symbol of two small adjacent circles inside a larger circle. What does this mean? And is it important?

A Curious Reader

Dear Curious Reader,

The “∞” symbol you describe is the infinity symbol, used to indicate that the paper is acid-free. The infinity symbol may accompany a statement that the paper meets the minimum requirements of the American National Standard for Information Sciences–Permanence of Paper for Printed Library Materials. If paper does not meet these standards but is known to be acid-free, the phrase “Printed on acid-free paper” is used. And yes, it is important.

One of the biggest detriments to paper’s durability is acidity, which causes embrittlement and deterioration. Acidic paper results from the use of inherently acidic wood pulp and the addition of chemicals during the manufacturing process. Deterioration of paper is indicated by a yellow to brown discoloration, first noticeable around the margins and working its way to the center of the page. Over time the paper becomes more fragile, with pieces of it breaking off from normal wear and tear. As the process continues, entire pages may break off from the book along the inner edge, leaving a book with many loose pages. Eventually the paper takes on a “potato chip” appearance, breaking into little pieces when crumpled.

Over the past twenty years more paper mills have converted their processes to produce acid-free paper. This paper is very popular with librarians, conservators, archivists and others who work with the preservation of paper products. In 1990 the State of Colorado passed a law calling for “the use of acid-free, alkaline-based, or permanent type paper in certain government publications,” to ensure the increased longevity of its archival records and publications. (Senate Bill 90-78)

Simply stated, acid-free or alkaline paper will last longer than acidic paper. Compare your novel with an older mass-market paperback printed on acidic paper which quickly becomes yellowed. If you visit flea markets with large paperback collections, you will find most volumes will be in various stages of embrittlement. Your novel should have a much longer life so you will have plenty of time to read it, again and again.

If you buy a novel without the infinity symbol, that does not necessarily mean that your volume is acidic. Chlorophenol red felt-tipped pens are widely used for testing the surface pH of paper. Although the pens will not determine the actual pH value, they will indicate whether the paper is neutral, acidic or alkaline. I have found pH pens for sale along with scrapbook materials in craft and hobby stores.

To use a pH testing pen, make a small mark on a page. Since the pen will leave a permanent stain, select an unobtrusive part of the book. At CSU Libraries we mark inside the “0” of the “50” page number. Read the mark as soon as it has dried. If the mark turns purple, the paper is neutral or alkaline. If the mark turns yellow or green, the paper is acidic. (The small mark may be difficult to see on aged or colored paper.) You can use the pH testing pen to verify the alkaline nature of paper identified by the publisher as acid-free.

For additional information on acid-free paper, conservation of acidic paper materials or preservation in general, please write to “Dear Dr. Book” in care of *Signatures*, Colorado State University Libraries, Fort Collins, CO 80523 or visit the libraries Preservation Services Web site at: <http://manta.library.colostate.edu/preserv/>.

