



# Conserve O Gram

July 1993

Number 4/2

## Dust Covers For Open Steel Shelving

Dust harms objects in two ways. It acts as an abrasive that can wear away surface detail, and it attracts and catalyzes moisture and gaseous pollutants to form acidic solutions that cause chemical deterioration.

Fortunately, dust can be controlled. For artifacts on steel shelving, protection is achieved by using dust covers. Dust covers block the openings of shelving units, thereby preventing dust from coming in contact with the objects.

### *Dust Cover Material*

Covers are most often made of either clear plastic (polyethylene) sheeting or unbleached cotton muslin. They each have advantages and disadvantages.

Plastic sheeting is an impenetrable barrier to dust and moisture and is clear, thus allowing easy inspection of artifacts without having to open the covering. (See *Conserve O Gram* 4/4 for guidance on covering open shelving with polyethylene sheeting to create a microclimate.) A disadvantage is that plastic is not flameproof. Cotton muslin may be made flameproof but does not allow viewing of the artifacts without opening the covering.

Two newer non-woven materials appear to have promise as coverings, and can be considered: Tyvek™ (style I621C), a spun polyethylene sheet, and Gore-Tex® 1.3 oz. Barrier, a laminate of a Teflon® membrane with a polyester backing.

Both materials are flexible, dustproof, waterproof, and opaque, yet still allow air

circulation. It should be noted that neither material is flameproof. A disadvantage with Gore-Tex 1.3 oz. Barrier is its high cost.

### *Attaching Dust Covers*

There are a number of means of attaching the covering material to the shelving, including small magnets and binder clips. With ingenuity, other methods may be devised. Whichever method is used, it should be chemically and physically non-damaging, and provide as complete a dust seal as possible while allowing easy accessibility.

### *Sources*

Polyethylene sheeting and unbleached cotton muslin are available to NPS and other government agencies from the General Services Administration (GSA) and may also be found in yard goods and hardware stores.

Gore-Tex is available from conservation supply companies or from W. L. Gore and Associates, Gore-Tex Fabrics Division, P.O. Box 1130, Elkton, MD 21921. Tyvek can be purchased from building supply stores.

Magnets are available from department or novelty stores. Binder clips are available from GSA or from an office supply store.

Donald R. Cumberland, Jr.  
Museum Specialist  
Curatorial Services Division  
National Park Service  
Harpers Ferry, West Virginia 25425

*Formerly issued as Conserve O Gram 4/7. Revised 1993.*

---

The *Conserve O Gram* series is published as a reference on collections management and curatorial issues. Mention of a product, a manufacturer, or a supplier by name in this publication does not constitute an endorsement of that product or supplier by the National Park Service. Sources named are not all inclusive. It is suggested that readers also seek alternative product and vendor information in order to assess the full range of available supplies and equipment.

The series is distributed to all NPS units and is available to non-NPS institutions and interested individuals by subscription through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, FAX (202) 512-2233. For further information and guidance concerning any of the topics or procedures addressed in the series, contact the National Park Service, Curatorial Services Division, Harpers Ferry, WV 25425, (304) 535-6410.