Choices: Gloves for Objects, People, and the Planet

Shared by the Sustainable Museums team (2015)

	NITRILE	NYLON	COTTON	VINYL	LATEX OR RUBBER
Material	Nitrile Powder-free; feels like Latex; fewer allergy issues	White nylon Available with rubber friction dots	White cotton Available with rubber friction dots	Vinyl	Latex or rubber Available without powder coating
End of Use Options	Recycle some brands through TerraCycle[1]	Washable and reusable	Washable and reusable	Recycle some brands through TerraCycle[1]	Recycle some brands through TerraCycle[1]
Advantages for Objects	No residue Chemically stable Allow a firm grip on smooth or slippery objects Good resistance to abrasions	No finger marks on objects Fit more snugly than cotton gloves	No finger marks on objects	Good for acids and bases, oils, fats, peroxides and amines Good resistance to abrasions	Good solvent resistance for many chemicals Highly elastic; allows for a firm grip on smooth or slippery objects
Advantages for Users	Impermeable barrier Low risk of allergic reaction Clear indication of tears/breaks	Support sustainability requirements	Support sustainability requirements	Impermeable barrier	Impermeable barrier
Concerns for objects[2]	Some contain sulfur which may tarnish silver and other highly reactive metals. Choose *accelerant-free* if this is a concern May not fit tightly enough for fine or detailed work Avoid contact with ketones, oxidizing acids and organic compounds containing nitrogen	Fabric can deposit lint on objects Texture can be abrasive Loose fit may cause handling problems Permeable barrier: can wick sweat and oil from user, and deposit on objects Avoid gloves with latex friction dots; see concerns for latex or rubber and vinyl gloves	Fabric can catch on surfaces, risking damage: splinters in wood, corrosion on iron, Fabric can leave lint on the object Texture can be abrasive Loose fit may cause handling problems on some objects Permeable barrier: can wick sweat and oil from user, and deposit on objects Avoid gloves with friction dots; see concerns for latex or rubber and vinyl gloves	Chemically unstable; degrade and discolor swiftly which may leave a residue on objects Avoid contact with ketones and aromatic solvents	Chemically unstable; degrade and discolor swiftly which may leave a residue on objects Avoid contact with oils, grease, and other hydrocarbons and organic solvents

Concerns for Users	If allergic to accelerant in nitrile, choose *accelerant free*	Not protective against chemical contaminants, or other residues from object handling	Not protective against chemical contaminants, or other residues from object handling	Risk of allergic reaction (less than with latex or rubber)	Risk of allergic reaction
Use to Handle[3]	Alphabetically: archeological collections; bone; CDs; complex objects; furniture; gilded or painted wood; glass; horn; illuminated manuscripts; ivory; lacquer; leather; metal; natural history specimens; objects treated with hazardous chemicals; organic materials; paintings and miniatures; paper; photographic materials including film, negatives, slides, and prints; plaster; plastics; stone; textiles; unglazed ceramics; wallpaper; wood Best choice for wide spectrum of chemicals including solvents, oils, greases, hydro-carbons and some acids and bases	… if nitrile gloves are unavailable: Books Paper Photographic materials including film, negatives, slides, and prints CDs Paintings Wallpaper	… if nitrile gloves are unavailable: Books Paper CDs Paintings Wallpaper	… if nitrile gloves are unavailable: Objects treated with hazardous chemicals	Use for specialized conservation treatments, not for general collections handling Consult with a conservator prior to handling objects with latex or rubber gloves

Adapted from "How to Select Gloves: An Overview for Collections Staff" by Claire S. Barker. Used with permission of the author.

1. Nitrile, vinyl, and latex gloves can be recycled through TerraCycle by ordering their "Disposable Gloves" or "Safety Equipment and Protective Gear" Category Separation Zero Waste boxes. How it works: Choose a small, medium, or large box to purchase. The box is shipped to you to be filled with the appropriate waste (some restrictions apply, such as items exposed to hazardous materials). Once full, bring the box to UPS to be shipped back to TerraCycle—a prepaid shipping label is included with the box. The returned waste is separated and then processed into new recycled plastic products. More information is available at http://zerowasteboxes.terracycle.com/collections/frontpage.

2. Test the stability of gloves with solvents before beginning an ongoing treatment or handling operation, or for information about gloves with chemical use, *AIC News* provides a comprehensive chart. (Schrager and Jue, 2013)

3. Collection staff and conservators are responsible for establishing standards for care and handling of objects at their institutions. In some situations—and at some institutions—**clean and ungloved hands** are recognized as a safe and preferred means for handling paper and other objects. When hands are properly and regularly cleaned, the risk of contamination to the object is low, while the benefit of tactile awareness and dexterity is high. If there are questions about standards for handling, a conversation with your conservation team or advisor can help you establish an appropriate choice of gloves for collection materials. (Baker and Silverman, 2005)

RESOURCES

Baker, Cathleen E., and Randy Silverman. "Misperceptions about White Gloves." *International Preservation News* 37 (December 2005): 4-16. Accessed April 22, 2015. http://www.ifla.org/files/assets/pac/ipn/ipnn37.pdf. Via "The White Glove Myth," *RagLinen Blog*, April 12, 2012. http://raglinen.com/wp-content/uploads/2012/04/White-glove-myths.pdf.

Barker, Claire S. *How to Select Gloves: An Overview for Collections Staff* [technical leaflet]. Washington, DC: National Park Service, 2010. Accessed March 10, 2015. http://www.nps.gov/museum/publications/conserveogram/01-12.pdf.

Schrager, Kerith Koss, and Erin Jue. "Choosing Gloves: A Quick Reference Guide." *American Institute of Conservation News* 38 (July 2013): 14-17. Accessed April 22, 2015. http://www.conservation-us.org/docs/default-source/publications-aicnews/2013_july_aicnews.pdf?sfvrsn=2.

Sustaining Places. "Gloves or No Gloves? When to Wear Gloves When Handling Museum Collections." Accessed April 22, 2015. https://sustainingplaces.files.wordpress.com/2015/01/sp-gloves.pdf.

TerraCycle. "Category Separation - Zero Waste Boxes." Accessed September 24, 2015. For plastic gloves: http://zerowasteboxes.terracycle.com/collections/frontpage/products/nitrile-and-latex-gloves-zero-waste-boxes. For safety equipment: http://zerowasteboxes.terracycle.com/collections/frontpage/products/safety-equipment-and-protective-gear-zero-waste-boxes.

University of California at Santa Cruz. "Glove recycling / Kimberly Clark program." Accessed April 22, 2015. http://sustainability.ucsc.edu/get-involved/student-projects/green-labs/Waste%20Reduction/Glove%20Recycling%20Program.html.

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