Cleaning Glass and Acrylic Display Cases

Plastics: Common Cleaners and Procedures
A wide range of transparent plastic materials are available from suppliers, including acrylics, polycarbonates, and styrenes. For museum applications, acrylic materials are generally preferred due to their transparency and toughness, and because they are easy to work with and to maintain. These materials include such products as Plexiglas, Acrylite, and Perspex.

Cleaning
Many household cleaners contain abrasives that may scratch acrylic sheet, and some also contain solvents that can cause crazing (the development of fine surface cracks). Also, acrylics tend to generate static electricity during cleaning and use, which causes dust to accumulate by electrostatic attraction. Plastics manufacturers, therefore, market specific cleaners for their own products that minimize static electricity and that do not cause scratching or crazing. The reader is advised to contact the suppliers listed at the end of this Note for information on all cleaning applications.

Stubborn Marks
Grease stains and traces of self-adhesive backing can be removed from acrylic sheet with kerosene or naphtha. Use these solvents with caution in a well-ventilated area. Stronger solvents are not recommended because they can cause the material to craze and soften.

Scratch Removal
Very shallow scratches can be removed from acrylic sheet with fine abrasives. Pre-polishes for automotive finishes can be used if the scratches are minimal. However, scratch removal can be very laborious and only the finest scratches in discrete areas can be removed in this way. Suppliers of acrylic sheet sell scratch removal kits and provide detailed instructions on how to use them. Compare the cost of the kit and the labour involved with the cost of replacing the scratched item to determine which method is most cost-effective.

Further information on the use and care of acrylic products is available from the suppliers listed below.

Glass: Common Cleaners and Procedures
Glass is heavier and less flexible than plastic sheet. It is used for display cases where high transparency, resistance to shock, and security are required. In general, tempered glass is preferred over plastic for safety reasons.
Cleaning
Glass is resistant to manual abrasives, solvents, and acidic or alkaline cleaners. Therefore, commercially available window cleaning products work very well when used as directed. However, with most display case applications, there are attached components that may be affected by water, solvents, acids, or alkalis. For example, the framing of glass panels may be made with wood mouldings or aluminum sections, either of which might be damaged by excessive application of wet cleaners. For this reason, apply a product such as Windex sparingly to the centre of the glass and wipe it outwards to the edges with a soft, lint-free cloth. Once the glass is judged to be clean, buff it with a dry cloth.

Stubborn Marks
Grease and adhesive tape stains can be removed from glass with kerosene or naphtha, but stronger solvents such as acetone can also be used without risk. Use these solvents with caution in a well-ventilated area.

Scratch Removal
Glass is normally very resistant to scratching. However, once scratched, glass is very laborious and time consuming to restore. In almost all cases, it is preferable to replace the glass.

Technical Information

Plexiglas Design and Fabrication Data Sheets
Rohm and Haas Company
2 Manse Road
West Hill, Ontario
M1E 3T9

Acrylite Tech Briefs
Cyro Canada Inc.
360 Carlingview Drive
Rexdale, Ontario
M9W 5X8

The above manufacturers can provide information on local suppliers of their products.