



TECHNICAL BULLETIN 132

Handling and Storage — Sheets

Handling

Aristech Surfaces Acrylic Sheet is manufactured and packaged under controlled conditions. This assures delivery to the customer, the highest quality continuously cast acrylic sheet possible.

Aristech Surfaces Acrylic Sheet is delivered in a heavy corrugated box, securely strapped to a non-returnable skid. The sheets are masked with a polyethylene film for protection, unless otherwise specified. Polyethylene interleaving or paper masking are optional protective materials.

After sheets are removed from the skid, the corrugated cover should be put back on for protection.

Sheets should be adequately supported when transporting. Use adequate support to eliminate excessive sag when carrying, or use 'A' frame carts, padded at support points, and of sufficient size, to handle the sheets. Do not drag a sheet on its edge, as it may chip and crack. When racking multiple sheets, use an interleaving material to prevent abrasion, and cover stack to avoid dirt accumulation.

Storage

Aristech Surfaces Sheet should be stored inside, in a dry protected area away from sources of heat, and operations involving solvent vapors.

Although it will not harm Aristech Surfaces Sheet, outdoor exposure should be avoided because of its adverse effects on packaging materials. If the material has been masked with poly film or paper, weathering can cause deterioration making removal difficult. Rain water may leach out various substances from the packaging materials and leave residues on the surface of the sheet, necessitating additional cleanup. Outdoor storage may cause the top and bottom sheets of pallets to absorb excessive amounts of water. If this occurs, these sheets will blister at a lower temperature when heated for thermoforming.

Boxed Aristech Surfaces Acrylic Sheet stock may be stacked to conserve warehouse space. Larger sized sheets are frequently stored in "A" frame racks (see Figure 1), in their shipping containers, for the same reason and for ease of access when needed. Single sheets should always be stored in racks. In the racks, sheets should be adequately supported to prevent bowing.

The supporting surfaces should be padded to prevent scratching, and interleaving sheets of tissue paper or polyethylene film used to prevent abrasion of adjacent surfaces. The racks should lean at an angle of approximately 100 (see Figure 2).

If, for some reason, sheets must be stored horizontally, care should be taken to avoid unsupported overhang. Sheets of different sizes, of the same caliper, should be stacked with the smaller sheets on top of the large sheets.

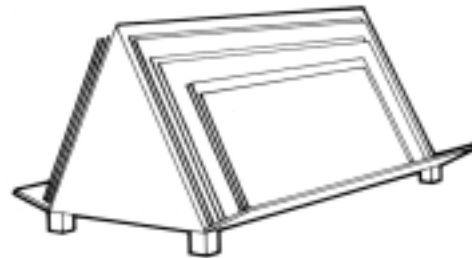


Figure 1 -- A-Frame Storage Rack

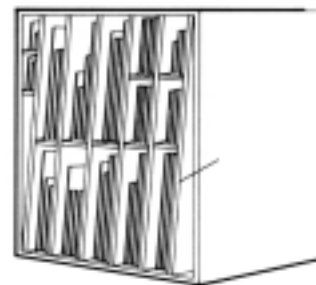


Figure 2 -- 10° Storage Rack

Cleaning

Wash Aristech Surfaces Acrylic Sheet with a non-abrasive soap detergent. After washing, flush the surface with clean water to remove all trace of soap or detergent. Ordinarily, dust and dirt can be removed with a soft, grit-free cloth, or chamois, dampened with clean water. Do not use abrasive cleaners or window cleaning compounds, as they may scratch or damage the surface of the acrylic. Avoid hard or rough textured cloths such as cheese-cloth or muslin.

Isopropyl alcohol, VM&P Naphtha, and hexane can be used to remove deposits of grease and oil. For removing fingerprints and china marking pencil from Aristech Surfaces Acrylic Sheet, automotive cleaners and wax are effective. To apply automotive cleaners and wax, use a soft, clean cloth. Spread the cleaner thinly and evenly with light pressure, allow the coating to dry and then wipe it off with a clean, soft cloth. Do not use wax on sheets if subsequent decoration by spray painting or silk screening is anticipated.

Masked Sheets

To protect the surfaces of Aristech Surfaces acrylic sheet during shipping, handling, and storage, sheets are masked with polyethylene film on both sides, unless otherwise specified by the customer. On special order, sheets may be supplied with masking paper applied with pressure-sensitive adhesive. The film or paper is convenient for penciling in guidelines for sawing, drilling, and other machining operations and should be kept on the sheet throughout as much of the process as possible.

Unmasking

The polyethylene film can be removed by loosening one corner and peeling back with a slow, steady pull. Masking paper may be similarly removed. However, it is better to roll off the paper onto a paper tube (Figure 3) or roll back from the edges (Figure 4). Particles of adhesive which adhere to the acrylic can often be removed by dabbing them with a wad of masking paper or by wiping the sheet with a soft, grit-free cloth using VM&P Naphtha or hexane. Sometimes it helps to saturate aged, hard to remove masking paper with kerosene or cyclohexanone. Unmasking usually produces a high charge of static electricity on the acrylic sheet. To remove this charge, wipe the surface with a clean cloth, dampened with water. Above 65% relative

humidity, static charges generally cause little or no trouble. Anti-static eliminators are also effective in removing static charges. This equipment is available in many forms, including portable air guns, stationary blowers, and flat or circular bar shapes.



Figure 3 -- Masking Paper Rolled Onto Tube



Figure 4 -- Masking paper removed by rolling back the edges

Protective Coating

Strippable protective coatings are primarily used to protect the surface of Aristech Surfaces acrylic sheet from minor abrasions, fingerprints, and dirt.

Masking compounds, which can be sprayed, brushed on or rolled on and later peeled off, are often convenient to use. The recommended application of the film is 3-5 mils (0.08-0.13 mm) thick. It is very important that the film be uniform and free from runs or other irregularities. If the film is too thin, it is sometimes very difficult to remove. Removing the film from acrylic sheet is done by lifting up on one corner and peeling it off making sure not to mark the surface. If removal is a problem, caused by the film being too thin, apply a second coat of the protective film to facilitate removal.

See Technical Bulletin #159 for Sources of Supply

For cautions and other information relating to handling of an exposure to this product, please see the applicable material safety data sheet published by Aristech Surfaces.

These instructions are based upon experience with Aristech Surfaces products only. Experience with products of other manufacturers is specifically disclaimed. For most uses, check for local code approval and test for application suitability. These procedures, techniques and suggested materials should only be used by personnel who are properly trained in the safe handling of the chemicals and the equipment with which they are working. Avoid aromatic solvents, clean with mild soap and water, avoid abrasives. These suggestions are based on information believed to be reliable, however, Aristech Surfaces makes no warranty, guarantee, or representation and assumes no obligations or liability as to the absolute correctness or sufficiency of any of the foregoing, or that additional or other measures may not be required under particular conditions or circumstances.



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May 2014

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