



Atlas Minerals & Chemicals, Inc.



# DATA SHEET

6-60PI (7-04)

Supersedes 6-60PI (1-00)

## ATLAS® POROUS PLASTICS

### DESCRIPTION AND USES

ATLAS POROUS PLASTICS are permeable plastics formed by a closely controlled unique sintering process. The sturdy sheets produced may be fabricated to meet individual requirements. Based on linear, high-density polyethylene of the Ziegler-type, the material is free of detachable fibers, has a good appearance, and a surface easily cleaned by backflushing, tamping or vibration. A uniform texture and smooth surface make for an attractive finished product. Application since 1959 have included liquid, gas, and air filtration, pneumatic conveying of powders, aeration, pneumatic silencing, and fluid transfer devices.

### CHEMICAL RESISTANCE

ATLAS POROUS PLASTICS offer the typical excellent chemical resistance of high-density polyethylene. ATLAS Bulletin 6-1 lists general resistance characteristics. Consult ATLAS' Technical Service Department for recommendations for specific applications prior to use.

### TEMPERATURE RANGE

Working conditions will affect temperature resistivity. ATLAS POROUS PLASTICS embrittle at temperatures below -94°F and can be used at intermittent temperatures up to 212°F.

### AVAILABILITY

ATLAS POROUS PLASTIC is available in sheet, roll and tube forms in two grades termed "Filter" and "Fluidizing". The maximum sizes listed are unseamed. Larger sheets can be furnished with narrow butt-welded seams.

### ATLAS POROUS PLASTIC-FILTER GRADE:

Thickness	Rolls
1/32"	39"
1/16"	39"
1/8"	36"
3/16"	39"

### ATLAS POROUS PLASTIC-FLUIDIZING GRADE:

Thickness	Sheets
1/8"	24" x 36"
3/16"	24" x 36"

## ATLAS POROUS PLASTIC TUBING

Tubes are machine manufactured up to 4" O. D. from filter grade rolls. The following are the O. D. sizes currently available:

Wall Thickness	O. D.
1/32"	1/4" - 5/8"
1/16"	3/4" - 1-3/8"
1/8"	1-1/2" - 4"

All wall thicknesses are available in tubes larger than 4" O. D. by alternate fabrication methods.

### PHYSICAL DATA

ATLAS POROUS PLASTIC is a tough, flexible, resilient, porous polyethylene. Particle retention is in the range of 25 microns and larger. The particular application determines the type of Porous Plastic required.

While Filter Grade Porous Plastic is used mostly for filtering, it is often used for Powder conveying and drying applications. Also, Fluidizing Grade Porous Plastic is sometimes used for filtration applications. The charts on the last pages of this data section describing air and water flow should be referred to when selecting the grade required for a specific application. In general, the rate of flow of liquid through all grades will vary with thickness. However, Fluidizing Grade is unique in that the gas flow through it at a given pressure differential is almost constant for all thicknesses.

### FOOD HANDLING APPLICATIONS

ATLAS POROUS PLASTIC is a hygienic material and not subject to infestation. It has found many applications in the handling and filtration of foodstuffs and potable liquids since it complies with Food Additives Regulation 121.2510-Polyethylene of the Food and Drug Administration.

### FABRICATION

Fabrication procedures are quite similar to those for solid high-density polyethylene sheet. Sheets may be joined by welding either with hot gas or the hot knife method. Conventional cutting methods, utilizing woodworking-type tools at relatively low cutting speeds, give good results. ATLAS POROUS PLASTICS may be formed into special shapes using vacuum moldings, plug-molding or drape-forming methods. Although pore conformation changes result

from forming, the POROUS PLASTIC remains acceptable for many applications. The material can be made hydrophilic by chemical treatment. ATLAS POROUS PLASTIC is compatible with linear, high-density solid polyethylene and may be joined to it by welding by the above methods.

It also may be joined to metals and other materials with mechanical fasteners.

ATLAS maintains complete fabrication facilities to manufacture material to your specifications. Where it may be found desirable to fabricate in your plant, we will cooperate by assisting in developing the necessary techniques to assure satisfactory fabrications.

### PRECAUTIONS

The materials referred to in this Data Sheet are for Industrial Use Only. They contain materials that present handling and potential health hazards. Consult Material Safety Data Sheets and the container labels for complete precautionary information.

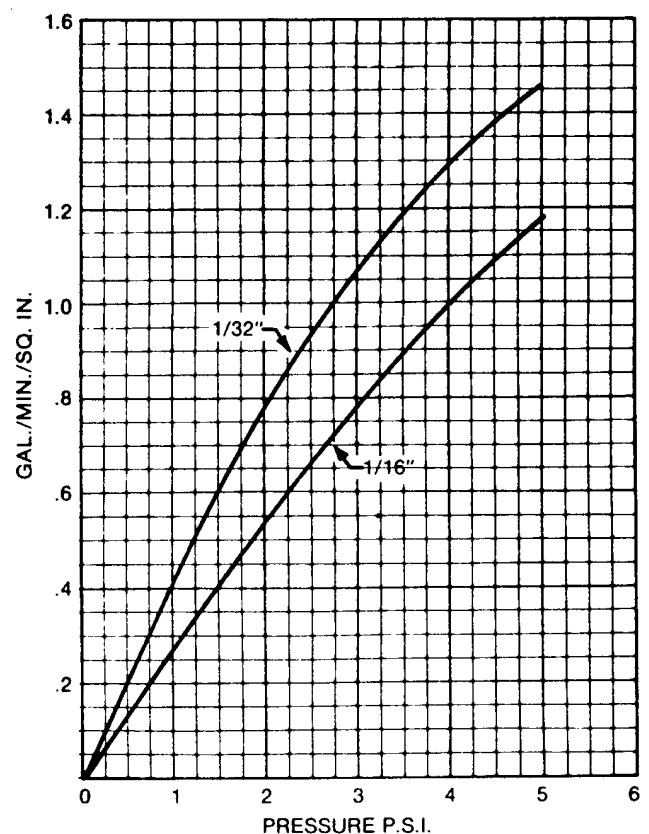
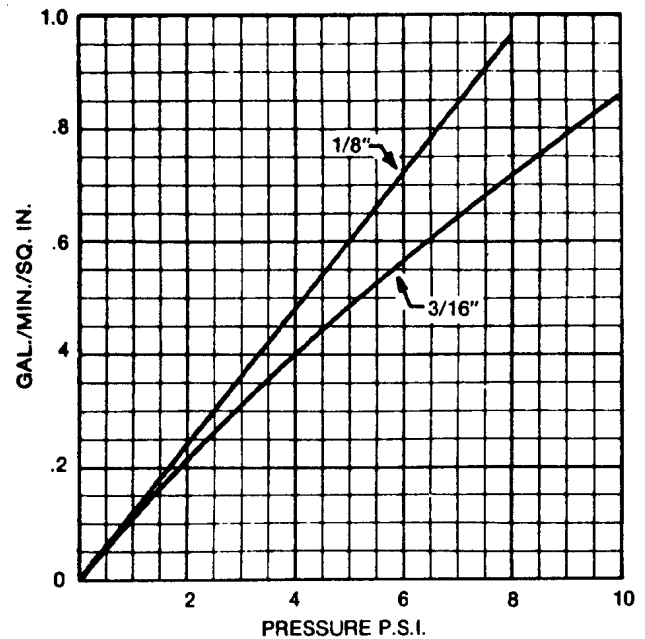
### TECHNICAL SERVICES

ATLAS maintains a staff of Technical Service Representatives who are available to assist you with the use of ATLAS products. In the event of difficulties with the application of ATLAS materials, the installation should be stopped immediately and ATLAS' Technical Service Department consulted for assistance.

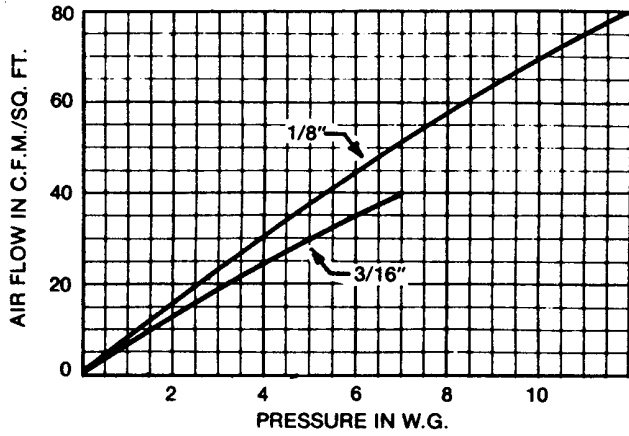
### WARRANTY

ATLAS warrants that its products will be free from defects in workmanship and materials under normal use for a period of one (1) year from the date of shipment by ATLAS (provided the products are installed before the expiration of the shelf life). THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR THE PURPOSE FOR THIS PRODUCT WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ATLAS' LIABILITY FOR ALLEGED BREACH OF THIS WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT (BUT NOT INCLUDING REMOVAL OF THE DEFECTIVE PRODUCT OR INSTALLATION OF REPLACEMENT PRODUCTS). ATLAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES DURING THE WARRANTY PERIOD OR THEREAFTER. **ATLAS' WARRANTY IS VOIDED IF PAYMENT FOR PRODUCT IS NOT RECEIVED IN FULL.**

## ATLAS POROUS PLASTIC FILTER GRADE WATER PERMEABILITY (MEDIAN RANGE)



### ATLAS POROUS PLASTIC FILTER GRADE AIR PERMEABILITY (MEDIAN RANGE)



### ATLAS POROUS PLASTIC FLUIDIZING GRADE PERMEABILITY VALUES (MEDIAN RANGE)

