

## Technical Information and Material Safety Data Sheet

### Transparent vent and cover manufactured from Acrylite® extruded sheet (FF).

**Characteristics:** ACRYLITE® extruded is the highest quality continuously manufactured sheet on the market today. The sheets used for the vent and covers are .060" (1.5 mm) in thicknesses and are protected with polyethylene film or paper masking, which must be peeled off before use. It is a lightweight, rigid and weather-resistant thermoplastic that is dimensionally stable, resistant to breakage and can be easily fabricated and cemented.

**Safety:** ACRYLITE® extruded sheet is more impact resistant than glass. If subjected to impact beyond the limit of its resistance, it does not shatter into small slivers, but breaks into comparatively large pieces.

**Weather Resistance:** ACRYLITE® extruded sheet will withstand exposure to blazing sun, extreme cold, sudden temperature changes, salt water spray, etc. It will not deteriorate after many years of service because of the inherent stability of acrylic resins.

**Dimensional Stability:** Although ACRYLITE® will expand and contract due to changes in temperature and humidity; it will not shrink with age.

**Expansion and Contraction:** Like most other plastics, ACRYLITE® extruded sheet will expand and contract from 3 to 8 times as much as glass or metals. The designer should be aware of its coefficient of expansion and make appropriate provisions. A 48" panel will expand and contract approximately .002" for each degree Fahrenheit change in temperature.

ACRYLITE® extruded sheet also absorbs water when exposed to high relative humidity, resulting in expansion of the sheet. At relative humidity of 100%, 80%, and 60%, the dimensional changes are 0.6%, 0.3% and 0.2%, respectively.

**Heat Resistance:** ACRYLITE® extruded sheet can be used at temperatures from -30°F (-34°C) up to +190°F (+88°C), depending on the application. It is recommended that temperatures not exceed 160°F (71°C) for continuous service, or 190°F (88°C) for short, intermittent use. Components made of ACRYLITE® should not be exposed to high heat sources such as high wattage incandescent lamps, unless the finished product is ventilated to permit the dissipation of heat.

**Light Transmission:** Clear, colorless ACRYLITE® extruded sheet has a light transmittance of 92%.

**Chemical Resistance:** ACRYLITE® extruded has excellent resistance to many chemicals including:

- solutions of inorganic alkalines such as ammonia
- dilute acids such as sulfuric acid up to a concentration of 30%
- aliphatic hydrocarbons such as hexane and VM&P naphtha

ACRYLITE® extruded sheet is not attacked by most foods and foods are not affected by it. It is attacked, in varying degrees, by:

- aromatic solvents such as benzene and toluene
- chlorinated hydrocarbons such as methylene chloride and carbon tetrachloride
- ethyl and methyl alcohols
- some organic acids such as acetic acid
- lacquer thinners, esters, ketones and ethers



For a listing of the resistance of ACRYLITE® sheet to more than 60 chemicals, refer to the table.

**Electrical Properties:** ACRYLITE® sheet has many desirable electrical properties. It is a good insulator. Its surface resistivity is higher than that of most plastics. Continuous outdoor exposure has little effect on its electrical properties.

**Source:** This information was taken from the technical information of ACRYLITE® extruded sheet (FF), Evonik Cyro LLC | ACRYLITE® (FF) | 1121(E)-0912-Cyro

**DEHYTRAY™ tray manufactured from Polifil®, RMT-3010 FDA, 30% Talc Filled, Impact Modified FDA Compliant Polypropylene meeting FDA Standards for Food Contact Applications**

**Physical property data of Polifil®**

PROPERTY	METHOD	MEASURE	RESULT
Melt Flow	D-1238 230/2.16	g/10min	10
Density	D-792	grams/cc	1.15
Tensile Strength @ Yield	D-638	psi	3,900
Elongation @ Break	D-638	%	25
Flexural Strength @ Yield	D-790	psi	6,200
Flexural Modulus- 1% Tangent	D-790	kpsi	310
Izod, Notched @ R.T.	D-256	ft-lb/in	1
Deflection Temp, 66 psi	D-648	deg F°	245
Deflection Temp, 264 psi	D-648	deg F°	145

The property values listed above have been obtained using laboratory-controlled test methods. They are offered without guarantee since conditions under which the product is used are beyond our control.

**Source:** This information was taken from the technical information sheet provided by The Plastics Group of America.

**DEHYTRAY™ cover and vent frames manufactured from Balopene PP5052, Polypropylene® Copolymer**

**Product Description:** Polypropylene injection impact copolymer with excellent color and processability. This resin also has a superior balance of stiffness and impact strength. This product meets FDA standards for food contact applications.

General <sup>1</sup>			
<b>Features</b>	· Copolymer · Food Contact Acceptable · Good Colorability	· Good Impact Resistance · Good Processability · Good Stiffness	Good Strength
<b>Uses</b>	Appliances	Battery Cases	Household Goods
<b>Agency Ratings</b>	FDA Food Contact, Unspecified Rating		
<b>Forms</b>	Pellets		
<b>Processing Method</b>	Injection Molding		
Physical	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
<b>Density</b>	0.903 g/cm <sup>3</sup>	0.903 g/cm <sup>3</sup>	ASTM D1505
<b>Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)</b>	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Mechanical	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
<b>Tensile Strength<sup>2</sup> (Yield)</b>	3900 psi	26.9 MPa	ASTM D638
<b>Tensile Elongation<sup>2</sup></b>			ASTM D638
<b>Yield</b>	14%	14%	
<b>Break</b>	160%	160%	
<b>Flexural Modulus – 1% Secant</b>	175000 psi	1210 MPa	ASTM D790
Impact	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
<b>Notched Izod Impact</b>	2.19 ft.lb/in	117 J/m	ASTM D256
Hardness	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
<b>Durometer Hardness (Shore D)</b>	82	82	ASTM D2240
Thermal	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
<b>Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed</b>	183 °F	83.9 °C	ASTM D648

**Notes:**

<sup>1</sup>Typical properties: these are not to be construed as specifications.  
22.0 in/min (51 mm/min)

**Source:** IDES Prospector – The Plastic Web