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- Sheet Plastics
- Cut to size & shape
- CNC Router cutting
- Fabrication
- Vacuum Forming
- Boat Screens & windows
- Signs & Displays
- Engineering Plastics
- Ecoscreen Plastic Lattice
- C/S Acrovyn
- Bld/Lic RL155051

updated:1/8/05

PETG TECHNICAL DATA AND INFORMATION SHEET

PETG sheet offers the kind of fabricating, forming and finishing ease that can really make a difference on the job. PETG also delivers impact strength that acrylic just can't touch. At the same time, it provides many of the advantages of polycarbonate, but without the high material costs.
The benefits of PETG's higher performance compared to acrylic, translate into thinner gauges and higher rates of production through easy die cutting, punching and low-temperature forming. PETG's forgiving nature also means less breakage during production, which can mean higher margins and lower costs.

FABRICATION: THE OPTIONS ABOUND
You are the designers seeking the leading edge of point-of-purchase and in-store display design and we have the high performance material to get you there...a material that can become a force in design by creating cost-effective options. Start thinking in bold curves, complex parts and moulded-in details, without worrying about durability or fabrication costs.

That's the versatility of PETG sheet. Its design freedom plus productivity. PETG sheet has the impact strength and fabrication ease that acrylic can't touch with the durability to significantly reduce your packaging and shipping costs. It gives you many advantages of polycarbonate without the high material costs. Bottom line - PETG sheet is everything you'll need to develop entirely new, cost-effective, creative solutions for the display marketplace.

PETG sheet offers deep draws, complex die-cuts, and precise moulded-in details without sacrificing structural integrity. It die-cuts and punches easily and can be bonded of fastened with adhesives, ultrasonic welding or rivets.
PETG sheet also allows you to fabricate large, complex shapes in a cost-effective manner compared to both polycarbonate and acrylic. Combine all these advantages with the choice of a full palette of custom colours and a complete array of finishing options and you'll see why PETG is the answer.

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PETG sheet delivers the performance edge that lets you reduce breakage during fabrication, shipping or while in use. And because the performance is so much improved over acrylic, PETG sheet displays can be shipped fully loaded and still arrive in one piece. This means your display immediately goes to work merchandising you client's products with little or no additional labour.

Complex shapes, precise details, clarity, deep draws, compound curves. Impact strength. Easy forming, die-cutting and punching. Increased design freedom. Lower fabrication costs. PETG sheet. A high performance material making a difference in the display marketplace.

PRODUCTIVITY IN FABRICATION:
PETG sheet sets the pace when it comes to design plus productivity. For designers, it provides the opportunity to develop entirely new creative solutions. For manufacturers, the advantages of higher performance compared to acrylic translates into thinner gauges and higher rates of production through easy die-cutting, punching, and low-temperature forming. PETG sheet's forgiving nature also means less breakage during production, which can mean higher margins and lower costs.

PRODUCTIVITY DURING SHIPPING:
With impact strength and durability that's far greater than acrylic, PETG sheet provides the unique opportunity to ship your display fully loaded and still reduce the amount of packaging compared to acrylic. This allows you to cut shipping costs, while significantly reducing breakage.

PRODUCTIVITY IN USE:
For the ultimate end-user, PETG sheet provides more durable and uniquely different display options. Less damage and breakage means more selling time as well as potentially less in-store liability. From the designer's imagination to the client's cost effective new look - PETG sheet is the answer.

PERFORMANCE:
PETG sheet combines an excellent balance of properties for a wide range of fabricated products. UV PETG has excellent resistance to ultra violet light and is the first choice for exterior applications.

FORMING AND FABRICATION:
PETG sheet may be fabricated using conventional thermoforming equipment. It can be used under conditions similar to acrylic sheet for both forming and secondary operations such as cutting, routing and drilling. The material is also compatible with conventional decorating and mechanical fastening systems.

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APPLICATION LIMITATIONS:
PETG sheet, like any thermoplastic, has its performance limitations under specific conditions and in particular environments, which the user should consider.
For Example: PETG sheet's heat resistance of 145° F precludes its use in heat generating applications where typical temperatures exceed 140-145° F.
Standard grade PETG is a common choice for interior displays and signage.
However for long term outdoor applications UV PETG with its added resistance to ultra violet light is the recommended material.
PETG sheet's good chemical resistance makes it ideally suited for harsh industrial environments. However, this chemical resistance may mean longer drying time when using solvent-based adhesives.

TYPICAL PROPERTIES OF PETG SHEET

PROPERTY	VALUE	UNITS	ASTM
Specific Gravity	1.27		D-792
Gardner Impact strength	No break, 300 in/lbs.		D-256
Flexural Strength	11,240	psi	D-790
Flexural Modulus	309,000	psi	D-790
Tensile Strength	6,990	psi	D-638
Tensile Modulus	301,000	psi	D-638
Elongation .125 in. thick	75	%	-
Elongation .020 in. thick	180	%	-
Dielectric Constant	3.46	@100HZ	D-150
Dielectric Strength	420	Volts/Mil	D-149
Volume Resistivity	6.0x10~15	Ohms/cm	D-257
Heat Distorsion Temp.	145 °	F	D-648
Vicat Softening Point	180 °	F	D-1525
Coefficient Thermal Expansion	0.00003	In/In/°F	D-696

These values are representative of those obtained under standard ASTM conditions and should not be used to design parts which function under different conditions.

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