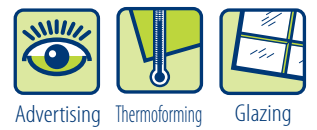


| | |
|-------------------------|------------------|
| Uniclass | EPIC |
| L6619:L414:P* Cl/SfB | F5217:D14+D15:X* |
| (37.4) | Rn6 |



PALCLEAR®

Flat, Rigid PVC Sheets

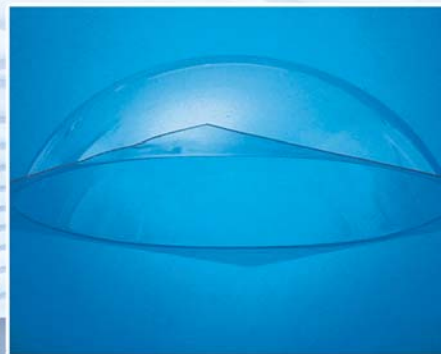
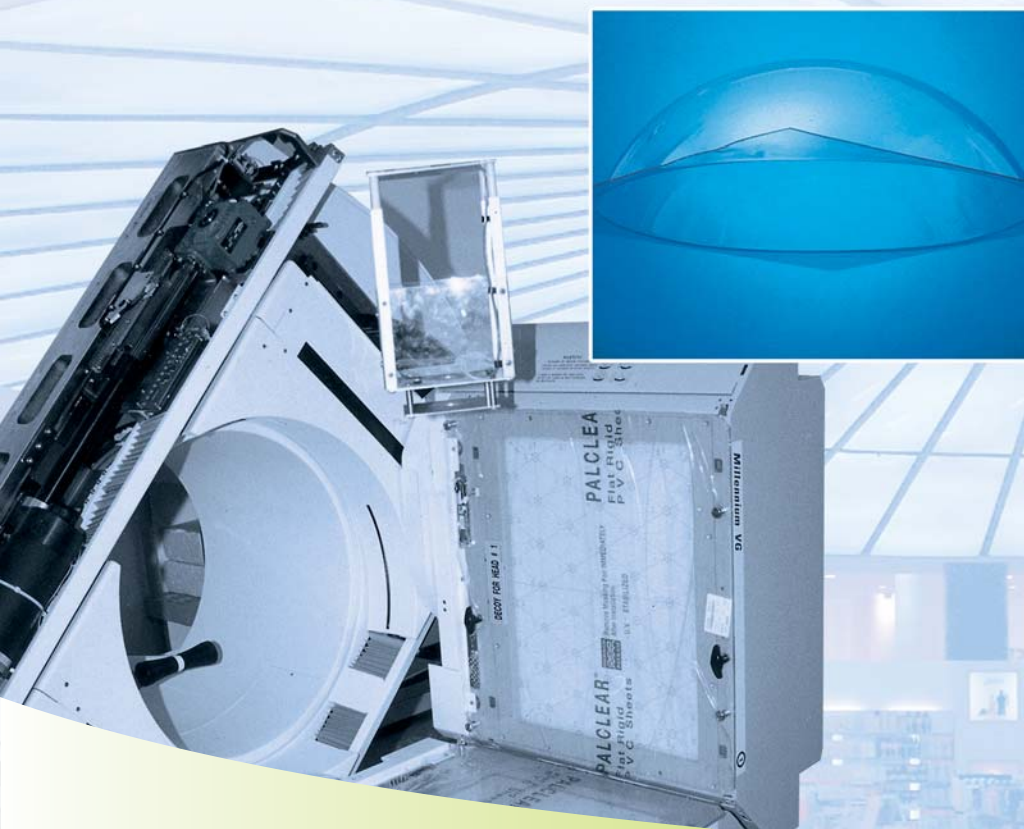


► Introduction

Only Palram's PALCLEAR Water Clear brings total clarity to PVC with the highest light transmission available. (The traditional bluish tint is also available.) PALCLEAR is available in standard or High Impact (HI) grades and as PALCLEAR UV for external applications. PALCLEAR is an excellent clear substrate for printed signs. PALCLEAR is the clear sheet of choice in harsh chemical environments.

► Features at a Glance

- High light transmission
- Water Clear Clarity
- The highest fire resistance rating available
- UV Resistant (PALCLEAR UV)
- Excellent chemical resistance
- Formable: PALCLEAR can be thermoformed, vacuum formed, bent hot or cold
- Impact Strength: standard and high impact resistance available
- Now available with a matt (one side) antiglare finish avoiding reflection
- ISO 9001:2000 Certified Quality Assurance



► Typical Physical Properties

| Property | (Method ASTM ^a) | CONDITIONS | UNITS | VALUE |
|---|-----------------------------|----------------|-------------------|----------------------|
| Density | (D-1505) | | g/cm ³ | 1.4 |
| Water Absorption | (D-570) | 24 hr. @ 23 °C | % | 0.03 |
| Heat Deflection Temperature | (D-648) | Load: 1.82 | °C | 62 - 65 |
| Service Temperature Range ^b | | MPa | °C | 0 to +50 |
| Thermal Conductivity | (C-177) | | W/m K | 0.15 |
| Coefficient of Linear Thermal Expansion (D-696) | | | cm/cm °C | 6.7x10 ⁻⁵ |
| Tensile Strength at Yield | (D-638) | | MPa | 71 |
| Tensile Strength at Break | (D-638) | 10 mm/min | MPa | 35 |
| Elongation at Yield | (D-638) | 10 mm/min | % | 3 |
| Elongation at Break | (D-638) | 10 mm/min | % | 60 |
| Tensile Modulus of Elasticity | (D-638) | 10 mm/min | MPa | 3,600 |
| Flexural Strength | (D-790) | 1 mm/min | MPa | 103 |
| Flexural Modulus | (D-790) | 1 mm/min | MPa | 3,400 |
| Impact behavior - Falling dart (ISO 6603/1E ₅₀) | | 1 mm/min | J | 95 |
| Light Transmission | (D-1003) | 3mm sheet | % | 87 |
| Yellowness Index - Water Clear | (D-192t5) | 3 mm sheet | | <4 |

^a ASTM except where noted otherwise.

^b PALCLEAR becomes brittle below 0 °C, however if no impact occurs, it will not be damaged by low temperatures.

► Flammability

PALCLEAR sheets are self-extinguishing and comply with the most demanding international fire resistance standards as indicated by representative results in the table to the right.

| Standard | Classification* |
|--------------|-----------------|
| DIN 4102 | B-1 |
| BS 476/7 | Class 1 |
| NSP 92501, 4 | M-1, M2 |
| IEC 695.2.1 | Self Extinguish |
| CSE RF 3/77 | Class 1 |
| UL 94 | V-0 |
| ASTM D-635 | SE |

*Depends on thickness

► Weather Resistance

PALCLEAR UV should be preferred for outdoor use and can cope with a wide variety of climatic conditions. The service temperature range of both PALCLEAR and PALCLEAR UV is from 0 to 50 °C. Q.U.V. accelerated laboratory weathering reveals that there is almost no change in the optical properties of PALCLEAR UV for tests lasting "2000 hours, which simulates 20 years of exposure outdoors".

Inasmuch as PALRAM Industries has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the material's suitability for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any PALRAM Industries patent covering such use or as recommendations for use of such materials in the infringement of any patent. PALRAM Industries or its distributors cannot be held responsible for any losses incurred through incorrect installation of the material. In accordance with our Company policy of continual product development you are advised to check with your local PALRAM Industries supplier to ensure that you have obtained the most up to date information.

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► PALCLEAR Flat Rigid PVC Sheets

| Product | Description |
|--|--|
| PALCLEAR | Standard PALCLEAR with traditional bluish tint |
| PALCLEAR Water Clear | PALCLEAR with the unique Water Clear clarity |
| PALCLEAR UV* | UV protected on one side (two sides available) |
| PALCLEAR HI | PALCLEAR with added impact strength |
| PALCLEAR UV TF | PALCLEAR® UV - for thermoforming |
| PALCLEAR Embossed | Prismatic embossed finish |
| PALCLEAR Matte  | Matt finish on one side |

*PALCLEAR UV can't be thermoformed with its PE intact. Please request PALCLEAR UV TF which can be thermoformed with its PE intact. All regular PALCLEAR products can be thermoformed with their PE intact.

► Colors

- Transparent: Water Clear, Bluish
- Translucent: Opal, Diffuser

Additional colors are available as special order upon request. Please contact your Palram representative or agent for additional details.

► Dimensions

| Product | PALCLEAR | PALCLEAR HI | PALCLEAR UV |
|-----------------------|----------|-------------|-------------|
| Dimension | | | |
| Thickness | | | |
| 1 mm | x | x | |
| 1.5 mm | x | x | |
| 2 mm | x | x | x |
| 3 mm to 10 mm | x | | x |
| Width x Length | | | |
| 1000 x 2000 mm | x | x | |
| 1220 x 2440 mm | x | x | x |
| 1300 x 2500 mm | x | x | x |
| 1500 x 3000 mm | x | x | x |

Other dimensions are available with a special order (minimum quantity requirements may apply in certain cases).

► Installation

Installation instructions can be supplied upon request. The polyethylene protective film must be removed from both sides immediately after installation.