



## Filters and Diffusers for All Flat Panel Displays, plus Light Guides, Front/Rear Projection Screens

- Precision Thin Sheet
- Precision Sheet Colors
- Precision Grey Smoke Filters
- Precision High Temp Sheet
- Low Moisture Absorbing Acrylic Sheet
- Hard Coat Sheet
- Super Hardcoat Sheet
- Low Friction Hardcoat Sheet
- Nonglare Filters
- Anti-Reflection Filters
- ITO Coat Filters
- NIR Filters
- CLAREX® Blue Ocean™ Front and Rear Projection Screens
- UV Cut Filters
- UV Transmission Filters
- IR Cut Filters
- Laser Scanner Filters
- Anti-Bacteria Filters
- Light Guide Reflector Sheet
- Light Guide Panels
- DR-IA Diffusion Reflector
- DR-IIA Transmissive Diffusing Reflector
- DR-IIIC Light Diffusing Filters
- DR-IIIS Light Shielding Diffusion Filters
- DR-IV Light Scattering Panels and Shapes

**CLAREX®**  
Optical Grade Cell-Cast Acrylic



*Exclusive Distributor in North America*

**APASTRA  
PRODUCTS**

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# Concise Guide To **Clarex**® Flat Panel Components

**Precision Thin Cast Acrylic Sheet (PMMA)** affords unsurpassed optical properties, surface smoothness, high transmission (clear = 93%). Available from 0.2mm (.008") to 5mm (.197"). No birefringence / retardation. Many surface options, coatings, any color / transmission available.

**Precision Cast Acrylic Sheet Colors** — Virtually any color/transmission available from 0.5mm (.020") thickness.

**Precision Grey Smoke Filters** are available in a range of transmissions. Dead front appearance when backlight is not active; contrast enhancement when display is illuminated.

**Precision High Temp Cast Acrylic Sheet** — Continuous working temp 95°C.

**Low Moisture Absorbing Cast Acrylic Sheet** — 30% less absorption than our standard cast acrylic. Reduces outgassing and improves dimensional stability.

**Hard Coat Sheet** — Weatherable hardcoat one or both sides. Pencil Hardness 6-8H. Good chemical resistance. Smooth or textured surfaces.

**Super Hardcoat Sheet** — 9H

**Low Friction Hardcoat Sheet** — Scratch resistant coating with low friction resists fingerprinting/smudging and facilitates cleaning.

**Nonglare Filter Sheet** optimizes display characteristics by eliminating unwanted reflections. There are five nonglare surface finishes. Available in scratch-resistant and a variety of colors and coatings.

**Antireflection (AR) Filters** multi-layer coatings reduce reflection/increase transmission. Additional coatings prevent surface scratching and smudging. AR Coat Filters may be combined with nonglare surfacing to improve anti-reflection. Any color.

**Anti Reflection and ITO Coat Filters** available with our without nonglare surface. Has scratch resistant coating. Available in clear, several neutral greys and colors. High light transmission.

**NIR (Infra-Red) Filters** transmit NIR and absorb visible rays. There are five types available, with cut off from 700nm to 820nm. Excellent optical characteristics without double refraction. Smooth or nonglare, scratch resistant.

**UV Cut Filters** protect displays from ultraviolet. Five types of ultra-violet absorption filters, cutoffs from 370nm - 480nm. Available smooth or nonglare surface and/or scratch-resistant option.

**UV Transmission Filters** transmit ultra-violet (80% at 300nm) and offer excellent optical characteristics without double refraction. Available smooth, non-glare, scratch resistant.

**IR Cut Filters** are available in polycarbonate, 1mm (.040") thick. Useful in NVIS applications to eliminate NIR emissions.

**Laser Scanner Filters** maximize transmission of 630 - 670nm laser for scanner applications. The surface may be treated with anti-reflection (AR) coating to reduce reflection. Available hardcoated one or both sides. Optional coatings prevent surface scratching and smudging.

**Anti-Bacteria Filters** are hygienic window filters. Specialized coatings prevent reproduction of bacteria. Optically excellent with scratch resistant coating - ideal choice for touch screens.

**Light Guide Reflector Sheets** developed for side lamp LCD units of PMMA acrylic. Excellent conductor of light with diffusion reflection.

**Light Guide Panels** for side lamp LCD units — an excellent conductor of light. These panels optimize uniformity and brightness of backlights.

**DR-IA Diffusion Reflector** — DR-IA Diffusion Reflectors uniformly reflect external light. Wide palette of colors available

**DR-IIA Transmissive Diffusing Reflectors** for light reflection and rear light diffusion. Wide palette of colors available.

**DR-IIIC Light Diffusing Filters** are excellent white diffusers for light transmissions from 45% - 93%. Custom colors, transmissions available.

**DR-IIIS Light Shielding Diffusion Filters** for LCD backlights are specially formulated for direct backlight applications incorporating high bright light sources, particularly LED's. Available with light transmission ranging from 5% to 40% in 5% increments.

**DR-IV HSOT Light Scattering Panels & Shapes** are polymerized and provide optimal inside scattering and illumination for the top surface from an edge light source. Effective illumination demonstrates a +30% improvement over conventional light guide panels.

**CLAREX® Blue Ocean™ Front and Rear Projection Screens** are newly developed structured and non-structured acrylic panels that maximize brightness and contrast, accurate reproduction. Panels can be bent or formed and are available in a wide variety of thicknesses, sizes and coatings.



*Please note our new address, phone and fax numbers:*

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