ZENIT

DONCHAMP® AeroView – Aviation Grade

Going to new heights
in transparent glazing

DONCHAMP
infinite possibilities

Transparent aircraft window glazing was one of the initial applications to be used for cast acrylic. Cast acrylic has excellent optical properties, where it is light weight, high UV stability, exceptional mechanical properties & ability to be thermoformed into contour shapes. Acrylic has been adopted for numerous aircraft applications for over 80 years, where it continues to be the chosen performer in this application.

DONCHAMP® acrylic is a leading quality and versatile plastic substrate, coupled with being environmentally friendly & recyclable. DONCHAMP® acrylic weighs approx. half that of glass, with eleven times the impact strength, enabling new possibilities in aircraft construction. DONCHAMP® acrylic can be machined & fabricated, where it meets with the requirements of handling & installation. DONCHAMP® acrylic can be routed, saw cut & polished & it is simple to thermoform into pleasing shapes. DONCHAMP® acrylic is non-toxic in the event of fire, where it creates no toxic smoke or gases and burns with almost no smoke, enabling good levels of visibility.

DONCHAMP® AeroView aviation grade acrylic production is with 100% virgin MMA (raw material), offering an unsurpassed 30-year UV clear warranty, against yellowing & UV degradation. In saying this, DONCHAMP® AeroView has impressively a residual monomer content level of less than 1%, creating improved mechanical properties & surface hardness, plus long term UV stability. DONCHAMP® Aeroview acrylic is manufactured to the highest optical standards, in relation to surface marks & possible inclusions, creating the best possible finished product for aviation applications.

DONCHAMP® AeroView withstands the extremeties of high temperatures & protects against UV radiation. DONCHAMP® Aeroview is a light weight glazing substrate, in comparison with alternatives, enabling lower fuel consumption. DONCHAMP® AeroView UL+ is a cross linked acrylic with higher levels of chemical resistance & the ability to thermoform to deep draw shaped finished applications.

DONCHAMP® understands the material requirements in fabrication, where we have tailored our production to cutting, routing, polishing & thermoforming finishing requirements. DONCHAMP® has available in house, high levels of specialist fabrication to meet with end applications, offering a complete integrated solution. DONCHAMP® AeroView has an extensive industry color range, with high-functional PE masking options. DONCHAMP® AeroView offers numerous standard dimensions, with a thickness range of 2 – 50mm.

DONCHAMP® AeroView Grades Available:

- DONCHAMP®AeroViewUL
- DONCHAMP®AeroViewUL+

Thickness Range:

- 2mm-50mm (further thicknesses available on request)

Standard Dimensions:

- 2440mm x 1220mm
- 3050mm x 2050mm

Masking: Thermoformable PE masking

Colours:

- Clear
- Industry standard transparent colours. Transparent blue, green, grey & brown available with various light transmission levels.

Suggested Light Transmission Requirements:

1. Greater than 70%	Windshields/PilotWindows
2. Between 70% & 50%	PassengerCabinWindows
3. Less than 50%	SunVisor/Shades

DONCHAMP® AeroView UL

- Cell cast acrylic tested to high optical standards for aviation glazing, no certification to aviation standards.
- UV-transmittance less than 1%.
- **Application:** Light wing /ultralight & very light planes, small glider canaopies, Gyrocopters etc.

DONCHAMP® AeroView UL+

- Cross linked acrylic with higher levels of chemical resistance & ability to thermoform to deep draw shaped finished applications.
- Tested to high optical standards for aviation glazing, no certification to aviation standards.
- Advanced surface hadness & mechanical properties.
- UV-transmittance less than 1%.
- **Application:** Lightwing /ultralight &very light planes, small glider canaopies, Gyrocopters etc.

CHEMICAL RESISTANCE PROPERTIES

- **R - RESISTANT:** Resistant for extended periods at temperatures ranging up to 49° C.
- **LR - LIMITED RESISTANCE:** Resistant for short periods at standard room temperature, trials may be required for suitability in application.
- **N - NOT RESISTANT:** Not resistant to the nominated chemical substance.

CHEMICAL NAME & TYPE

Acetaldehyde - NR
Acetic Acid (5%) - R
Acetic Acid (Glacial) - N
Acetic Acid 100%
Acetic Anhydride - LR
Acetone - N
Ammonium Chloride (Saturated) - R
Ammonium Hydroxide (10%) - R
Ammonium Hydroxide (Conc.) - R
Aniline - N
Battery Acid - R
Benzene - N
Butyl Acetate - N
Calcium Chloride (Sat.) - R
Calcium Hypochlorite - R
Carbon Tetrachloride - N
Chloroform - N
Chromic Acid (40%) - N
Citric Acid (10%) - R
Cottonseed Oil (Edible) - R
Detergent Solution (Heavy Duty) - R
Diesel Oil - R
Diethyl Ether - N
Dimethyl Formamide - N
Dioctyl Phthalate - N
Ethyl Acetate - N
Ethyl Alcohol (50%) - LR
Ethyl Alcohol (95%) - N
Ethylene dibromide - NR
Ethylene Dichloride - N
Ethylene Glycol - R
2-Ethylhexyl Sebacate - R
Formaldehyde (40%) - R
Petrol (Regular, Leaded) - LR
Glycerine - R
Heptane - R
Hexane (Comm. Grade) - R
Hydrochloric Acid - R
Hydrogen Peroxide (3%) - R
Hydrogen Peroxide (28%) - N
Isooctane - R
Isopropyl Alcohol - LR
Kerosene - R
Lacquer Thinner - N
Methyl Alcohol (50%) - LR
Methyl Alcohol (100%) - N
Methyl Ethyl Ketone (MEK) - N
Methylene Chloride - N
Mineral Oil R
Naphtha (VM&P) - R
Nitric Acid (10%) - R
Nitric Acid (40%) - LR
Nitric Acid (Conc.) - N
Nitrobenzene - LR
Oleic Acid - R
Olive Oil - R
Phenol Solution (5%) - N
Soap Solution (Ivory) - R
Sodium Carbonate (2%) - R
Sodium Carbonate(20%)- R
Sodium Chloride (10%) - R
Sodium Hydroxide (1%) - R
Sodium Hydroxide (10%) - R
Sodium Hydroxide (60%) - R
Sodium Hypochlorite(5%) - R
Sulfuric Acid (3%) - R
Sulfuric Acid (30%) - R
Sulfuric Acid (Conc.) - N
Toluene - N
Transformer Oil - R
Trichloroethylene - N
Turpentine - LR
Water (Distilled) - R
Xylene - N

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