# Technical Data Sheet Aerospace Transparencies



## **Embraer 314 ALX windshields and canopies**



#### Windshield

Features	Benefits
Original-equipment supplier	<ul><li>Proven reliability</li><li>Latest design and upgrades</li><li>Worldwide customer and technical support</li></ul>
Polycarbonate-acrylic laminate	<ul> <li>Acts as a barrier to eliminate for glass particles to fly off into the cockpit in the event of a bird strike potential</li> </ul>
Superior bird-strike performance	Combines material properties for optimum impact and environmental performance     Superior optics     Lightweight

## Forward and aft canopies

Features	Benefits
Original-equipment supplier	<ul><li>Proven reliability</li><li>Latest design and upgrades</li><li>Worldwide customer and technical support</li></ul>
Aerospace-qualified stretched acrylic	Lightweight
Protective inboard coating	<ul> <li>Provides scratch, chemical, abrasion resistance</li> <li>Longer service life</li> <li>Solar heat control</li> </ul>

PPG's aerospace business is proud to supply both the OEM and after-market transparencies for the Embraer Super Tucano, a robust, versatile and powerful turboprop aircraft capable of carrying out a wide range of missions, including close air support and intelligence, surveillance, training and reconnaissance.

### Military transparencies leader

A leading and experienced manufacturer of windshields, canopies, windows, blast barriers and specialty transparencies for military applications, PPG has a broad range of capabilities to design and produce advanced-technology transparencies that meet the demanding requirements of military air and surface operations.

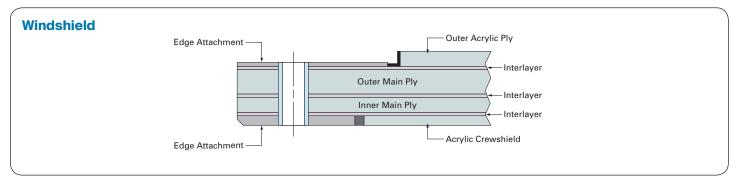
PPG offers a variety of transparent structural materials tailored to aerospace applications.

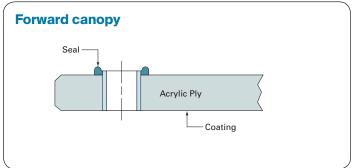
Plastic substrate materials currently in production include acrylic that is strong and lightweight, and polycarbonate that has superior impact resistance and a high strength-to-weight ratio. PPG also is developing exciting, new transparent structural materials with superior structural properties that have the potential to replace both acrylic and polycarbonate.

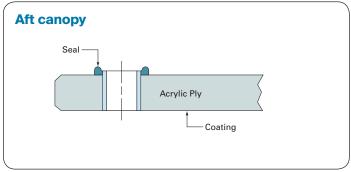
For example, PPG OPTICOR™ Advanced Transparency Material provides unprecedented performance and unique design capabilities that meet the demanding needs of today's aerospace industry. This innovative high-performance, proprietary PPG plastic is superior to other commonly used aerospace plastics, offering exceptional resistance to abrasion, chemicals, ultraviolet degradation and fire. Because it resists crazing, PPG *Opticor* Advanced Transparency Material maintains optical clarity. It has lower density than stretched acrylic and low moisture absorption, and it is an excellent substrate for metallic and nonmetallic coatings. Unique non-uniform shapes can be created with PPG *Opticor* Advanced Transparency Material.

PPG proprietary interlayers bond the plies together and provide ballistic properties, bird-impact resistance and pressure "fail-safe" capability.

## **Embraer 314 ALX windshields and canopies**







#### **Part numbers**

Windshield 186300-03
Forward canopy 186400-05
Aft canopy 186500-05
Clarity Transparency Cleaning System 599306

Proprietary electrical heating systems provide anti-ice/anti-fog protection.

PPG advanced coatings and technologies help protect transparencies and aircrews from operational or environmental threats, and provide a variety of performance enhancements. A few of these are solar heat reduction, laser protection, and electromagnetic interference (EMI) shielding. Such technologies are designed to be compatible with night vision systems and other optical requirements.

PPG transparencies have flown and participated in numerous air and surface military missions. The company is a leader in its transparency technical capabilities and infrastructure, OEM and operator support, and ability to supply parts worldwide on a timely and affordable basis.

# **CLARITY**<sup>™</sup> **Transparency Cleaning System**

PPG CLARITY™ Transparency Cleaning System developed for easy removal of debris on plastic transparencies while adding protection to facilitate future cleanings and potentially increase service life. In a two-part process, a wet wipe saturated with a proprietary blend is applied to the substrate to remove superficial debris, and then a dry wipe is used to take off any haze. Kits containing both types of wipes are available. Contact your PPG aerospace sales representative for more information and to order PPG Clarity Transparency Cleaning System.

#### **Ordering information**

Orders may be placed through PPG aerospace's worldwide network of application support centers (ASCs). For the ASC nearest you, visit www.ppgaerospace.com.

In North America, call toll-free +1 (800) AEROMIX.

Pricing, warranty and delivery details are available from your PPG aerospace sales representative.

PPG (Huntsville) 1719 US Highway 72 East Huntsville, Alabama 35811 USA Telephone +1 (256) 851-7001 PPG (Sylmar) 12780 San Fernando Road Sylmar, California 91342 USA Telephone +1 (818) 362-6711 PPG (Italy)
Via Delle Tre Venezie, 10
26010 Casaletto Vaprio (CR), Italy
Telephone +39 0373 272 011

PPG (Dallas) 802 Avenue J East Grand Prairie TX 75053-4036 Telephone +1 (972) 647 1366

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