Technical Data Sheet Aerospace Transparencies



Boeing AH-64 Apache windshields, windows, canopy and blast barrier



Windshield

Features	Benefits
Glass plies	Structural strength Demonstrated durability Excellent maintainability
Thermally tempered glass	 Chemical, abrasion and scratch resistance Superior optical quality High load-carrying capabilities Excellent resistance to foreign article damage Resists thermal shock
PPG Nesatron [®] anti-ice heating system	 Full-coverage heating Excellent heating uniformity Optical clarity No failures from localized heating Graded heat zones

Side window overhead canopy

Features	Benefits
Stretched acrylic	Lightweight

Blast barrier

Features	Benefits
Polycarbonate-acrylic laminate	Combines superior impact resistance of polycarbonate with strength of acrylic
PPG urethane interlayers	Provides maximum adhesion for increased resistance to delamination and extends service life Elasticity at low temperatures

PPG's aerospace business transparencies is a leading and experienced manufacturer of windshields, canopies, windows, blast barriers and specialty transparencies for military applications. With a broad range of capabilities, PPG is able to design and produce advanced-technology transparencies to meet the demanding requirements of military air and surface operations.

PPG offers a variety of transparent structural materials to meet specific design and performance requirements. Thermally tempered glass offers impact and thermal shock resistance as well as high load-carrying capabilities. Chemically strengthened glass provides superior strength and durability. Special-composition glass incorporates enhanced optical properties with high light transmittance. Plastic substrate materials include acrylic that is strong and lightweight, and polycarbonate that has superior impact resistance and a high strength-to-weight ratio. PPG interlayers bond the plies together and provide ballistic properties, bird-impact resistance and pressure "fail-safe" capability. In-house capabilities allow PPG to engineer and produce interlayers specially tailored to aerospace applications.

PPG offers advanced coatings that protect transparencies and aircrews from various operational or environmental threats.

PPG SIERRACOTE™, NESA® and NESATRON® thin metal films form the basis of anti-ice/anti-fog electrical heating systems.

Other PPG advanced coatings and technologies help protect transparencies and aircrews from operational or environmental threats, and provide a variety of performance enhancements.

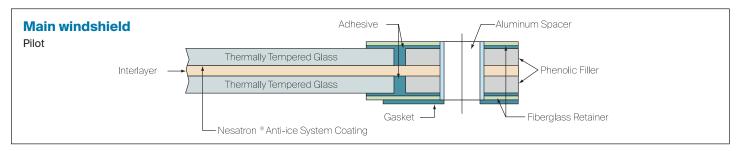
A few of these are solar heat reduction, laser protection and electromagnetic interference (EMI) shielding. Such technologies are designed to be compatible with night vision systems and other optical requirements.

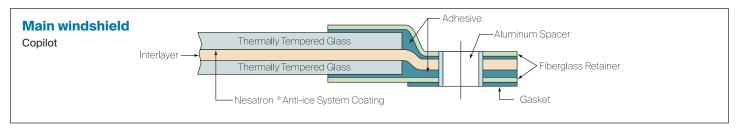
PPG's aerospace business transparencies have flown numerous military missions. The company is a leader in its transparency technical capabilities and infrastructure, OEM and operator support, and ability to supply parts worldwide on a timely and affordable basis.

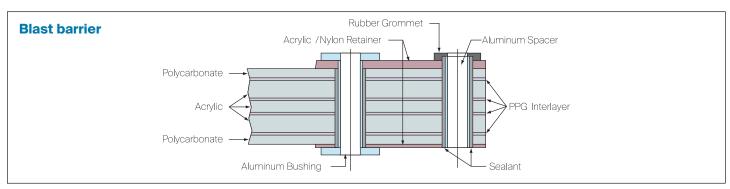
Additional information

Details on pricing, warranty and delivery are available by contacting your PPG's aerospace transparencies sales representative or customer service representative.

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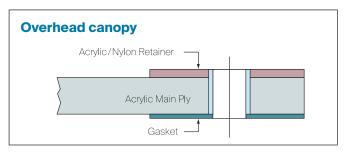


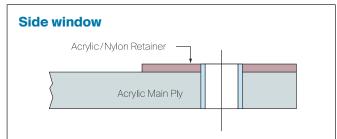




Part numbers

Transparencies	U.S. national stock number	Boeing part number
Main windshield, pilot	1560-01-170-7474	7-311112015-19
Main windshield, copilot	1560-01-170-7475	7-311112015-17
Blast barrier	1680-01-161-1182	7-311920210
Lower/forward side window, right-hand	1560-01-160-1296	7-311112015-9
Lower/forward side window, left-hand	1560-01-160-1297	7-311112015-7
Upper/aft side window right-hand,	1560-01-160-6768	7-311112015-13
Upper/aft side window, left-hand	1560-01-163-5182	7-311112015-11
Overhead canopy	1560-01-163-9621	7-311112015-15





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