Technical Data Sheet (TDS) - DPQA0001106-001
Anti-Reflection (AR) vs Anti-Glare (AG) Clear Glass

Product Selection Guide

This guide provides a high-level comparison to support early material selection for display cover glass manufactured from Pilkington float substrates.

Quick Selection Rule

Choose AG glass when robustness, handling tolerance, and wide usability matter most.
Choose AR glass when maximum optical clarity and contrast are critical.

Comparison Overview

Attribute	Anti-Glare (AG) Glass	Anti-Reflective (AR) Glass
Optical Principle	Light diffusion via etched surface	Reflection reduction via thin-film coating
Surface Type	Chemically etched (integral to glass)	Vacuum-deposited multi-layer coating
Reflection Control	Diffuse	Specular reflection suppression
Image Sharpness	Good	Excellent
Contrast Improvement	Moderate	High
Haze	Low–medium (etch dependent)	Very low
Viewing Angle	Non-directional	Non-directional (angle dependent performance)
Surface Robustness	High	Moderate
Scratch / Abrasion Resistance	Typical of etched glass	Coating-dependent
Handling Sensitivity	Low	Higher (coated surface)
Cleaning Tolerance	Good	Controlled methods required
Fingerprint Visibility	Moderate	Higher
Cost Level	Moderate	Premium
Manufacturing Risk	Low	Higher (process discipline required)

Typical Use Cases

Anti-Glare (AG) Glass

- Industrial and transportation HMIs
- Public information displays
- Equipment windows and control panels
- Applications prioritising durability and readability under ambient light

Anti-Reflective (AR) Glass

- Medical and diagnostic displays
- Aerospace and defence equipment
- Laboratory and precision instrumentation
- Applications requiring maximum contrast and optical fidelity

Processing & Integration Considerations

Consideration	AG Glass	AR Glass
CNC machining	Fully compatible	Post-coating preferred
Printing (screen / digital)	Compatible	Non-coated surface recommended
Optical lamination	Fully compatible	Fully compatible
Chemical toughening	After etching	Before coating
Post-processing flexibility	High	Limited after coating

Design Guidance

- AG glass is the default choice when specification certainty, robustness, and long-term durability are required.
- AR glass should be selected only where optical performance justifies increased handling control and cost.
- Mixed AG/AR hybrid specifications are not recommended unless validated at system level.

General Note

Final material selection should be validated through application-specific testing under actual service and environmental conditions. Optical performance is influenced by lighting, viewing angle, surface cleanliness, and assembly design.