

AR/AF/AG Multi-Layer Coating Options Brochure

1. Preface

All coatings are customized for sapphire substrate, compatible with automotive, medical, AR optical working environment, no coating peeling after long-term temperature cycle test.

2. 4 Main Coating Types Detailed Introduction

(1) AR Anti-Reflection Coating

- Function: Reduce surface reflectance below 0.5%, improve display clarity under strong sunlight
- Application: Automotive central control screen, outdoor industrial touch HMI
- Wavelength range: 400–1700nm dual-band AR coating

(2) AF Anti-Fingerprint Coating

- Function: Hydrophobic & oleophobic, fingerprint easy to wipe, anti-stain for medical touch panel
- Application: Medical diagnostic touch equipment, consumer AR eyepiece
- Test standard: 10,000 times friction without coating failure

(3) AG Anti-Glare Matte Coating

- Function: Diffuse strong light reflection, avoid screen glare for long-time operation
- Application: Industrial control cabinet, outdoor kiosk high-temperature display

(4) AR+AF Composite Double Coating

Dual functions of anti-reflection & anti-fingerprint, most popular for automotive & medical sapphire cover

3. Coating Environmental Test Data

- High-low temperature cycle: -40℃~120℃ 1000 cycles, no peeling
- Salt spray test: 500 hours salt water corrosion resistant
- Medical alcohol disinfection: Wipe 5000 times without coating damage

4. Coating Selection Suggestion Table

Industry	Recommended Coating
Automotive touch screen	AR+AF composite coating
Medical diagnostic device	AF single layer / AR+AF
AR/VR optical eyepiece	Broadband AR coating
High temp industrial instrument	AG anti-glare coating