



DIAMOND
COATINGS



Diamox AR21617 PET Film with Anti-Reflection Coating

INTRODUCTION

Diamond Coatings, a privately owned group of companies, is a recognised leader in the production and manufacture of vacuum coatings, which include transparent conductive coatings (our Diamox ITO range – Indium Tin Oxide) and optical coatings (our Diamox AR range – Eg: Broadband AR or V coat, 3DAR for Cinema application, Beam Splitter, etc).

Our AR coatings are individually designed and fine-tuned, to be deposited onto both glass and plastic, to meet your specific requirements and specifications.

In addition to our specialist coatings, Diamond Coatings also offer a wide range of coated films and we have now extended our film product range, to offer a high quality Anti-Reflective (AR) film, which we can provide by sheet, roll or directly laminated on your chosen substrate.

Our Diamox AR21617 film offers a two-sided anti-reflective coating with an enhanced level of higher transparency and is suitable dual sided, non-bonded products. The film also has an anti-fingerprint coating on one side.

An additional benefit to our Diamox AR21617 Film is that it also boasts excellent Anti-Static and abrasion resistance properties, as well as being an anti chemical material, all of which contribute to our film's great performance. (See below)

DIAMOND COATINGS LTD.

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COATING LAYER STRUCTURE

Protective Film
AFP Coating
AR Coating
Hard Coated 188um PET
AR Coating
Protective Film

PROPERTIES

Product Name	Diamox AR21617 Film	
Substrate	Polyester film - 188µm	
Items	Result	Method of Testing
Luminous reflection	>96%	JIS K 7361
Luminous reflection – AFP Side	<1.0%	JIS R 3106
Luminous reflection – Non-AFP Side	<0.7%	JIS R 3106
Haze	<0.6%	JIS K 7316
Cross-Hatch Test	4B	Scotch Tape Peeling on AR Coated Layer
CIELAB	L*	99.3
	a*	-0.7
	b*	2.5
Pencil Hardness	2~3H	JIS K 5600
Water Contact Angle	>105 degree	By DC's Water Drop Testing Method
Abrasion resistance	10 Times < 5 Lines	Steel Wool (#0000) 200g Load

* The data indicated above is the data measured internally by Diamond Coatings.

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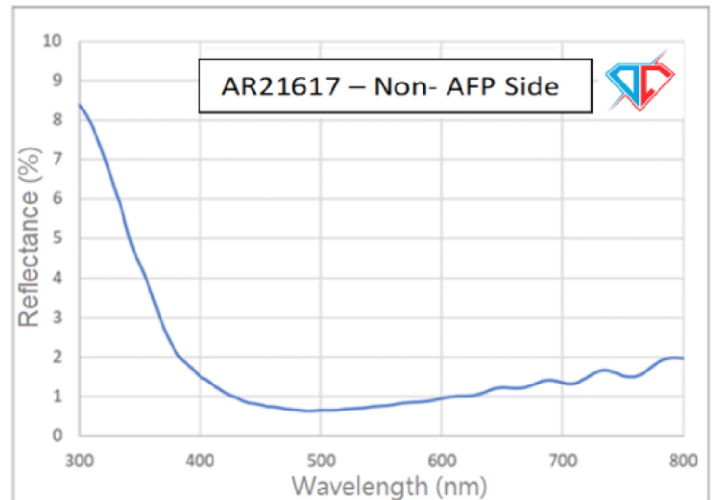
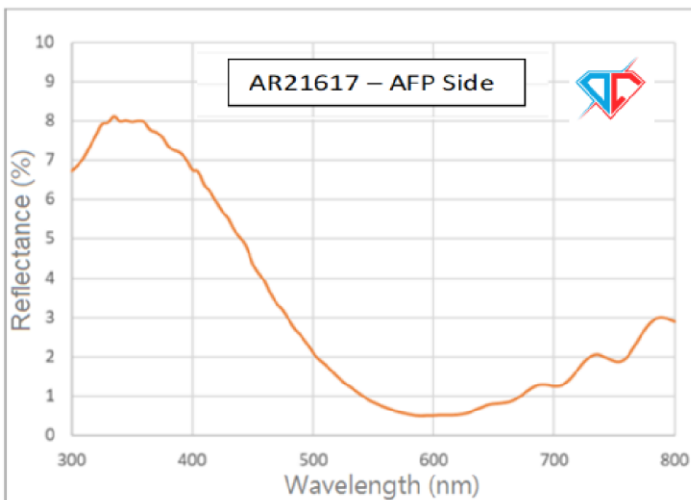


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Reflection of Diamox AR21617 Film



Environmental Testing

Test Sample	Result	Test Method
Heat	Unchanged	103DegC – 500 Hours
Cycling Test	Unchanged	-30°C to + 60°C – 50 times
Humidity	Unchanged	80°C – 90% RH – 500 Hours

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Chemical Resistance

Test Condition:

Deposit a drop of test sample on film surface, wipe the drop after 30 minutes and check the surface.

These tests have not been done by an independent laboratory and are to be used for information only.

Test sample	Result
Glass Cleaner	Unchanged
Alcohol	Unchanged
Acetone	Unchanged
Kitchen cleaner 5% aq.sol.	Unchanged
NaOH 1% aq.sol.	Unchanged
NH4OH 3% ap.sol.	Unchanged
HCl 3% aq.sol.	Unchanged

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Processing Care Point

Cleaning instructions:

Our Diamox AR21617 film can be cleaned with a soft microfibre cloth and breath wiping. For more stubborn marks, please use a soft cloth with Ethanol or IPA.

Storage:

Store in a cool, dry and well-ventilated area. Avoid exposure to direct sunlight or moisture.

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