

**If you are seeking
PLC and fiber array adhesion
with high reliability, try these products**

Adhesives for Optical Waveguides

In order to achieve high reliability, a product must clear the tests conducted by the users themselves. If you have had even just a bit of dissatisfaction in reliability test results, please put NTT-AT's adhesives to the test. We will also offer consulting regarding adhesion related issues.



Excellence in Durability

Acrylate-based adhesives which have cleared a large number of reliability tests

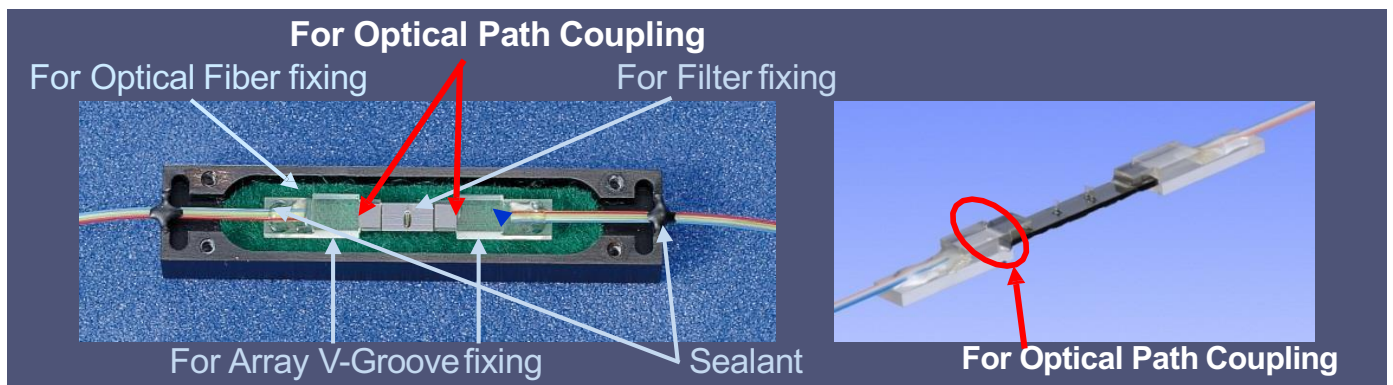
Adjustable Refractive Index

Epoxy adhesives with the same refractive index as quartz to deliver low reflectance

Simple Operability

The UV curing allows for adhesion in a short time frame

■ Structural Images



■ Standard Products, Properties

Item	Conditions	Units	Epoxy		Acrylate	
			GA700H	GA700L	AT6001	AT8224
Curing Conditions	UV Intensity	mW/cm ²	30	10	10	10
	Time	Min	10	5	5	5
Viscosity	25°C	mPas	280	250	470	145
Refractive Index (after curing)	589nm	-	1.458	1.456	1.505	1.505
	830nm		1.453	1.450	1.495	1.496
	1300nm		1.448	1.446	1.490	1.491
	1550nm		1.447	1.445	1.489	1.489
Optical Transmittance	850nm	% (1mm)	92	94	93	86
	1300nm		91	94	91	89
	1550nm		88	92	86	82
Glass Transition Temperature (T _g)	Tanδ _{max}	°C	145	46	0	115
Shrinkage	Density change	%	4	4	7	9
Hardness	Shore D	-	80	44	24	38
Thermal Expansion Coefficient(CTE)	25 – 100°C	ppm/°C	81	210	148	123
Elastic Modulus	25°C	Mpa	1300	480	18	67
Shear Bond Strength	Initial period	kgf/cm ²	>247	>154	99	>209
	121°C, 100% after 20H		72	132	91	83
Water Absorption	1mm, after 24H	%	0.5	0.8	3	10
Weight Loss on Heating	100°C, 100H	wt%	0	5	3	3
	150°C, 10H		0	11	3	5

■ Adjustable Refractive Index Products, Properties

Item	Conditions	Units	High-Tg Type	Low-Tg Type
Curing Conditions	UV Intensity	mW/cm ²	30	10
	time	min	10	10
Viscosity	25°C	mPas	250 - 2000	200 - 560
Refractive Index	1550nm	-	1.446 - 1.547	1.445 - 1.549
Optical Transmittance	1550nm	%	89 - 90	86 - 90
T _g	tanδ _{max}	°C	140 - 150	40 - 50
shrinkage	Density change	%	3 - 5	4 - 8
Hardness	Shore D	-	75 - 80	23 - 45
CTE	25 – 100°C	ppm/°C	60 - 80	80 - 220

For more information

<http://www.ntt-at.com/product/adhesive/>



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