

**For those seeking resins  
with a refractive index of 1.4 or less**

## Low Refractive Index Resins

At NTT-AT, using its refractive index control technology and optical loss reduction technology that are the basis for adhesives of optical communication, has developed for sale resins with a low refractive index of 1.4.

These resins are aimed at usage in the fields of optical recording, display technology, optical energy uses, etc.



### High Transparency

**90 % or more transparency at 1mm thickness**

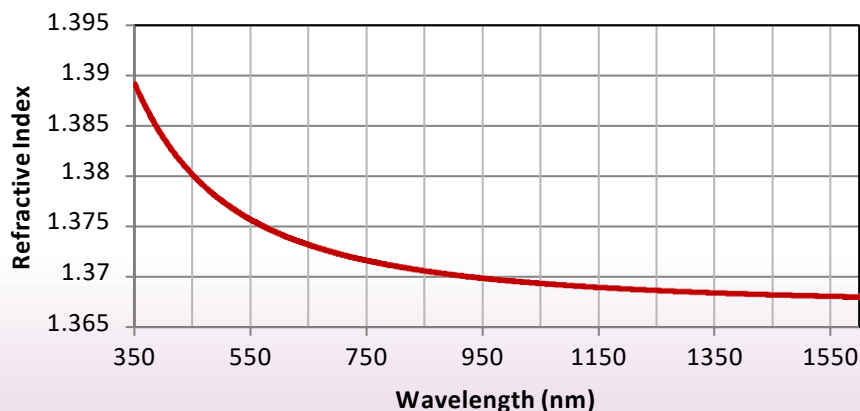
### Refractive Index Adjustable

**Refractive Index adjustable to 1.4 or less**

### High accuracy Refractive Index Control

**The accuracy of adjusting refractive index is  $\pm 0.005$**

### ■ Optical Features



Refractive Index Wavelength Dispersion of #18204

## ■ Specifications

	Item	Test method: Condition	Units	Acrylate		Epoxy	
				#18204	#18114	E3810	
Before curing	Viscosity	E-type viscometer : 25°C	mPa·s	7	25	100	
After curing	Curing Conditions	UV Intensity	mW/cm <sup>2</sup>	10	10	10	
		time	min	1	5	10	
	Refractive Index	589nm	-	1.375	1.400	1.438	
	Tg	tanδ <sub>max</sub>	°C	18	94	103	
	Thermal expansion coefficient (CTE)	TMA : α1	×10 <sup>-5</sup> /°C	-	14	11	
		TMA : α2		18	18	24	
	Hardness	Shore D	-	D20 A85	D72	D78	
	Elastic modulus	Dynamic viscoelasticity : 25°C	MPa	13	800	1000	
	Optical Transmittance	450nm	%	(Thickness 1mm)	89	92	76
		540nm			91	94	86
630nm		91			94	89	
Shear Bond Strength	glass/glass: 25°C	kgf/cm <sup>2</sup>	27	26	>61		

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※Please understand that all comments and data recorded herein may be subject to change without prior notification.

※ Numerical values listed are measured values. They are not performance guarantees

**For more detailed information of Low Refractive Index Adhesive, please visit our website.**

**For more information**

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



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