

# LOCTITE ABLESTIK 190950

February 2022

## PRODUCT DESCRIPTION

LOCTITE ABLESTIK 190950 provides the following product characteristics:

<b>Technology</b>	Acrylate
<b>Appearance</b>	Translucent amber liquid
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• One component, requires no mixing</li> <li>• Fast UV cure</li> <li>• Low viscosity</li> <li>• Flexible</li> <li>• Thixotropic</li> </ul>
<b>Cure</b>	Ultraviolet (UV) light, Visible light
<b>Application</b>	Component assembly, NCA (Non Conductive Adhesive)
<b>Typical Assembly Applications</b>	<ul style="list-style-type: none"> <li>• Wire protection of ear/head phones</li> <li>• Bonding parts of multi-actor</li> <li>• Image sensor lens bonding</li> </ul>

LOCTITE ABLESTIK 190950 is a single component, UV or visible light curable adhesive.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, HAAKE Viscometer @ 25 °C, mPa·s (cP):	
Shear rate 36 s <sup>-1</sup>	9,000
Density	1.2
Specific Gravity @ 25 °C	1.1
Refractive Index, ND	1.48
Shelf Life @ 8 to 28°C, days	360

## TYPICAL CURING PERFORMANCE

### Recommended UV Cure Condition

Light Source and Condition:	
High pressure mercury UV lamp:	
UV Wavelength, nm	365

### Tack Free Time

Tack Free Time @ 100 mW/cm <sup>2</sup> , seconds	15
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### Depth of Cure

Depth of Cure, cured 15 seconds @ 100 mW/cm <sup>2</sup> , mm	8.1
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UV intensities quoted are measured using USHIO UIT-101 UV meter. (UV intensity indicated by OAI 306 UV meter at 365nm is 10% higher than that of USHIO UIT-101 UV meter.)

LOCTITE ABLESTIK 190950 can be cured by irradiation with ultraviolet of sufficient intensity. To obtain full cure on surfaces exposed to air, the intensity of UV radiation at 220 to 260 nm will accelerate the tack free cure of surface. The cure rate and ultimate depth of cure will depend on light intensity, the spectral distribution of the light source, the exposure time and the light transmittance of the substrates.

The above cure profile is a guideline recommendation. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and the light transmittance of the substrate.

## TYPICAL PROPERTIES OF CURED MATERIAL

Sample cured 120 seconds @ 100 mW/cm<sup>2</sup>, using a high pressure mercury lamp

### Physical Properties :

Hardness, Shore D	70
Glass Transition Temperature (T <sub>g</sub> ) by DMA, °C	90
Coefficient of Thermal Expansion :	
Below T <sub>g</sub> , K <sup>-1</sup>	140 x 10 <sup>-6</sup>
Above T <sub>g</sub> , K <sup>-1</sup>	190 x 10 <sup>-6</sup>
Shrinkage, %	9
Elongation at break, %	210
Water Absorption, 24 hours @ 23°C, %	2.4
Refractive Index, ND	1.52
Tensile Modulus	N/mm <sup>2</sup> 320 (psi) (46,400)
Tensile Strength at break	N/mm <sup>2</sup> 25 (psi) (3,630)

### Electrical Properties :

Dielectric Constant :	
@ 10 kHz	4.9
@ 1 MHz	4.4
@ 10 MHz	4.2
Dissipation Factor:	
@ 10 kHz	0.04
@ 1 MHz	0.04
@ 10 MHz	0.06
Volume Resistivity, ohm-cm	1.8 x 10 <sup>15</sup>
Surface Resistivity, ohms	3.6 x 10 <sup>14</sup>

**TYPICAL PERFORMANCE OF CURED MATERIAL**

Samples cured using a high pressure mercury light source

**Shear Strength**

Tensile Shear Strength, cured 40 seconds @ 100 mW/cm<sup>2</sup>, 365 nm UV wavelength:

Grit blasted mild steel pin to glass	N/mm <sup>2</sup>	17
	(psi)	(2,470)

Bonded Torque Strength, cured 300 seconds @ 6 mW/cm<sup>2</sup>, 365 nm UV wavelength:

Grit blasted aluminum hex button to glass	N/mm <sup>2</sup>	120
	(psi)	(17,400)

**GENERAL INFORMATION**

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

**STORAGE**

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**Optimal Storage: 8 to 28°C. Storage below 8°C or above 28°C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel Representative.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\text{N} \times 0.225 = \text{lb/F}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{N/mm}^2 = \text{MPa}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Not for product specifications**

The technical data contained herein are intended as reference only. Please contact your local Henkel representative for assistance and recommendations on the specifications of this product.

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**Reference 2**