

**LOCTITE**<sup>®</sup>

Expose Yourself to a Whole New Light

# Indigo<sup>®</sup> Visible Light Cure Technology



**Henkel**

# Typical Applications



LOCTITE® Indigo® technology – Indigo® 3555™ and the Indigo® CureJet™ LED – were selected for the assembly of irons, where deep cure and high adhesion to blue-tinted thermoplastic are required.



The low-viscosity LOCTITE® Indigo® 3554™ is used for the assembly of purple-tinted medical components, where biocompatibility compliance is an absolute requirement.



LOCTITE® Indigo® 3556™ is used to assemble high-end sunglasses, where speed of cure and cure through blue and grey components are required.



LOCTITE® Indigo® 3555™ and the Indigo® CureJet™ LED are specified for prefilled drug syringes, where minimal heat exposure and the ability to detect adhesive presence are critical.



LOCTITE® Indigo® 3556™ and the CureJet™ LED System offer fast, tack-free bonding of the dust cap to cone for speaker assembly.

Improving safety, reducing energy costs, delivering quality, and achieving sustainable benefits is what Henkel's latest generation of LOCTITE® Indigo® Visible Light Cure technology is all about.

This revolutionary technology relies solely on light in the visible spectrum to deliver all of the benefits of traditional light curing, while eliminating many of the process limitations manufacturers have dealt with for decades.

Ideal for a wide range of applications, Henkel's Visible Light Cure technology exceeds both industry and environmental sustainable standards – ensuring a safer working environment, eliminating venting, reducing unnecessary energy usage, and saving money through less replacement, maintenance, repair, and capital investment costs.

## Features & Benefits

FEATURE	BENEFIT
ADHESIVES THAT REACT WITH VISIBLE LIGHT	<ul style="list-style-type: none"> <li>• Cure through select colors</li> <li>• Compatible with temperature-sensitive components</li> <li>• Cure to depths in excess of 0.5"</li> </ul>
CURE SYSTEMS WITH VISIBLE OUTPUT	<ul style="list-style-type: none"> <li>• Reduced requirements for personal protective equipment</li> <li>• Minimal IR emissions, reducing part heating and warp</li> <li>• No ozone to vent</li> <li>• Longer-life light guides, bulbs and LEDs</li> <li>• Reduced power consumption and energy costs</li> </ul>
CURE ON DEMAND	<ul style="list-style-type: none"> <li>• Minimized work in progress</li> <li>• Maximized floor space</li> <li>• Increased production throughput</li> <li>• Immediate testing of assemblies</li> </ul>
FLUORESCENT IN UNCURED AND CURED STATES	<ul style="list-style-type: none"> <li>• Immediate quality inspection</li> </ul>
ISO 10993-COMPATIBLE	<ul style="list-style-type: none"> <li>• Suitable for disposable medical device assembly</li> </ul>

# Visible Light Cure Adhesives

Ranging from low to high viscosity, there is an Indigo® Light Cure Adhesive for essentially any application. With rapid surface cure and enhanced curing depth, these adhesives are suitable for bonding, potting, and coating applications on a wide variety of substrates.

PERFORMANCE DATA	LOCTITE® INDIGO® 3554™ LOW VISCOSITY	LOCTITE® INDIGO® 3555™ MEDIUM VISCOSITY	LOCTITE® INDIGO® 3556™ HIGH VISCOSITY
Chemical Type	Acrylic	Acrylic	Acrylic
Appearance	Clear/Light Yellow	Clear/Light Yellow	Clear/Light Yellow
Fluorescent	Yes	Yes	Yes
Cure Type	Visible Light	Visible Light	Visible Light
Viscosity	300 cP	1,000 cP	5,000 cP
Key Substrates	polycarbonate, polyvinylchloride, thermoplastic, steel	polycarbonate, polyvinylchloride, thermoplastic, steel	polycarbonate, polyvinylchloride, thermoplastic, steel
Shear Strength*	3,350 psi	2,350 psi	2,900 psi
Shear Strength^	1,700 psi	2,000 psi	2,300 psi
Hardness (Shore D)	77	76	70
Elongation (10-second cure)	7%	10%	29%
Modulus	175,000 psi	167,000 psi	114,000 psi
Depth of Cure (in 5 seconds)	> 0.5"	> 0.5"	> 0.5"
Tack-Free Time	< 5 seconds	< 5 seconds	< 5 seconds
Temperature Range	-65°F to 300°F	-65°F to 300°F	-65°F to 300°F
ISO 10993 Biological Tested	Yes	Yes	Yes

  

ORDERING INFORMATION	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER
25 ml syringe	1072199	1072221	1072223
1 liter bottle	1072198	1072200	1072222

\*POLYCARBONATE TO POLYCARBONATE

^POLYCARBONATE TO POLYVINYLCHLORIDE

# Visible Light Cure Equipment

Indigo® Cure Systems output visible light only, making them safe and highly cost-effective. With a variety of point systems and a flood source, there is a visible cure system for nearly every assembly application. And, with many LED-based systems now available, including the industry's highest power LED system – the Indigo® CureJet™ – WIP and maintenance costs have essentially been eliminated.

	POINT SOURCES			FLOOD SOURCE
	INDIGO® CUREJET™ P/N 1369537	INDIGO® 7703™ HD P/N 883979	INDIGO® 7703™ P/N 98595	INDIGO® LED FLOOD CURE P/N 1167589
Cure Area	0.30" diameter @ 0.5" distance	0.25" x 0.25" @ 0.5" distance	0.25" x 0.25" @ 0.5" distance	100mm x 100mm @ 50mm distance
Lamp Type	LED	LED	LED	LED
Typical Intensity	9-13 W/cm2 @ 12mm distance	2.5-3.0 W/cm2 @ 4mm distance	2.5-3.0 W/cm2 @ 4mm distance	6 W/cm2
Duty Cycle	100%	100%	<50%	100%
Bulb/LED Life	10 times typical UV bulbs	10 times typical UV bulbs	10 times typical UV bulbs	10 times typical UV bulbs
Key Features	Highest power LED system; stackable with 25mm center-to-center spacing; instant on/off	Continuous or timed operation available; instant on/off	Fully portable with rechargeable batteries; instant on/off	Largest curing area; stackable on 100m center-to-center spacing; instant on/off
Required Accessories	LED CureJet Controller (1364033) 3 m Cable (1370352) or 1 m Cable (1370351)	Foot Switch (97201) or PLC Interface Cable (8900550) or Cure Timer (960356) or Pistol Grip Timer (1003327)	Nothing additional required	LED Flood Controller (1359255) and Connecting Cable (1333333)



LOCTITE® 7703™ Indigo® LED System



LOCTITE® CureJet™ Indigo® LED System



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