

**accelerate
electronics
evolution**

LOCTITE HHD 3544F

Leveraging its broad innovation portfolio and in keeping with the company's sustainability priorities, Henkel developed the industry's first bio-based* polyurethane reactive (PUR) hot melt structural adhesive and offers a sustainable alternative for consumer electronics assembly.



- Easy processing
- Excellent bonding to plastics, metal and glass
- Long open time & work life while dispensing or jetting
- Contains bio-renewable materials and contributes to circular economy
- Reduced carbon footprint to reach climate targets

* Bio-Based Content Measurement: Henkel defines bio-based products as containing >50% of the organic content derived from bio/renewable sources

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TYPICAL APPLICATIONS

- LOCTITE HHD 3544F can be used for a wide range of consumer electronics structural bonding applications in mobile phones, laptops, tablets, wearables, and accessories.
- The bio-based formulation is compatible with a variety of substrates including plastics, metals and glass; aligns with high-volume production objectives, enabling deposition of narrow bond lines via jetting or needle dispensing; and, integrates fluorescence for in-line automatic optical inspection (AOI).

PRODUCT CHARACTERISTICS

LOCTITE HHD 3544F possesses desirable mechanical and chemical properties.

	LOCTITE HHD 3544F	LOCTITE HHD 3546F	LOCTITE HHD 3542
Bio-Based Raw Material Content	60%	20%	0%
Feature	<ul style="list-style-type: none">• Good basic bonding performance• Long open time• Dispensing stability and jetting performance	<ul style="list-style-type: none">• Good basic bonding performance• Fast fixture and high green strength within 10 minutes	<ul style="list-style-type: none">• Good initial strength• Relatively long open time• Excellent elongation and structural durability
Technology	Polyurethane hot melt	Polyurethane hot melt	Polyurethane hot melt
Appearance	Beige solid	Beige solid	Light yellow to amber solid
Cure	Moisture / Solidification	Moisture / Solidification	Moisture / Solidification
Open Time @ 25 °C	4 minutes (1.75 mm bead)	2 minutes (1.75 mm bead)	< 4 minutes (1 mm bead)
Application Temperature, °C	90 - 120	90 - 120	90 - 110
Tensile Modulus, MPa	190	125	115
Tensile Strength, MPa	11	9.24	14.36
Cross Tensile Strength, 24 hours, PC/SUS, MPa	> 4	> 3	> 3
Elongation @ Break, %	1,070	1,143	860

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