



The Loctite® brand offers a complete line of one-part and two-part epoxy and urethane adhesives for structural bonding, potting, and encapsulating.

The Loctite® brand Hysol® line contains a wide range of application-specific products designed to outperform the competition in all aspects:

- Better Adhesion
- Better Flow
- Less Odor
- Improved Clarity
- Higher Strength
- Greater Durability

From fast setting to high temperature properties, Hysol® Epoxy and Urethane adhesives offer a variety of performance benefits to meet your assembly requirements.

BONDING

EPOXY & URETHANE ADHESIVES

EPOXY ADHESIVES

Loctite® E-00CL™ Hysol® Epoxy Adhesive

Low Odor

A clear, flowable, fast setting epoxy with a 5-minute worklife.

Loctite® E-00NS™ Hysol® Epoxy Adhesive

Non-Sag

A translucent, controlled flow, low odor epoxy with a 5-minute worklife.

Loctite® E-05CL™ Hysol® Epoxy Adhesive

Toughened

An ultra clear, high peel, low odor epoxy with a 5-minute worklife.

Loctite® E-20HP™ Hysol® Epoxy Adhesive

Fast Setting

A high strength epoxy with a 20-minute worklife. Off white, toughened, high peel, high shear.

Loctite® E-20NS™ Hysol® Epoxy Adhesive

Metal Bonder

A light tan, non-sag, high peel, high shear epoxy with a 20-minute worklife.

Loctite® E-30CL™ Hysol® Epoxy Adhesive

Glass Bonder

An ultra clear, low viscosity, impact resistant epoxy with a 30-minute worklife.

Loctite® E-40FL™ Hysol® Epoxy Adhesive

Flexible

A grey, impact resistant, toughened epoxy with a 40-minute worklife.

Loctite® E-60HP™ Hysol® Epoxy Adhesive

Toughened

A high strength epoxy with a 60-minute worklife. Off white, high peel, high shear.

For the name and number of your nearest distributor, call:
1-800-LOCTITE (562-8483)

or use the "Distributor Locator" on our web site at
www.loctite.com/distributor

**Loctite® E-60NC™ Hysol®
Epoxy Adhesive***Electrically Non-Corrosive*

A potting compound with a 60-minute worklife. Black, opaque, low viscosity.

**Loctite® E-90FL™ Hysol®
Epoxy Adhesive***Flexible*

A grey, impact resistant, toughened epoxy with a 90-minute worklife

**Loctite® E-120HP™ Hysol®
Epoxy Adhesive***Ultra Strength*

An amber, non-sag, aerospace grade epoxy with a 120-minute worklife.

**Loctite® E-214HP™ Hysol®
Epoxy Adhesive***High Strength*

A one-component, heat cure epoxy. Grey, temperature resistant, non-sag.

**Loctite® 608™ Hysol®
Epoxy Adhesive***High Strength*

A fast setting, low odor epoxy with a 5-minute worklife. Cures at room temperature to form a clear bondline.

**Loctite® D609™ Hysol®
Epoxy Adhesive***Ultra Clear*

A high performance epoxy with a 5-minute worklife. Low odor, very fast room temperature cure, heat resistant to 180°F.

**Loctite® 615™ Hysol®
Epoxy Adhesive***Sandable*

A high strength, low odor epoxy with a 10-minute worklife. Blue, fast cure, gap filling.

**Loctite® 0151™ Hysol®
Epoxy Adhesive***Ultra Clear*

A general purpose thixotropic paste epoxy with a 50-minute worklife. Allows for extended adjustment time.

**Loctite® 9433™ Hysol®
Epoxy Adhesive***Self-Leveling*

A high strength epoxy with a 30-minute worklife. Cream in color, flowable, toughened, high peel resistance.

**Loctite® 9430™ Hysol®
Epoxy Adhesive***High Strength*

An off white, toughened, light paste, high peel, high shear strength epoxy with a 40-minute worklife.

**Loctite® 9460™ Hysol®
Epoxy Adhesive***Non-Sag*

A grey, impact resistant, high viscosity, high peel, high shear epoxy with a 30-minute worklife.

**Loctite® 9459™ Hysol®
Epoxy Adhesive***High Temperature Resistance*

A one-component, heat cure epoxy. Low viscosity, self-leveling. Light grey, excellent high temperature performance, excellent chemical resistance.

**Loctite® 9432NA™ Hysol®
Epoxy Adhesive***Non-Sag*

A grey, single component paste, heat cure epoxy. Excellent high temperature performance, excellent chemical resistance, surface insensitive.

URETHANE ADHESIVES**Loctite® U-05FL™ Hysol®
Urethane Adhesive***High Strength*

A two-part, high performance urethane adhesive for metal bonding with a 5-minute worklife. Off white, highly flexible, impact resistant, high peel, high shear.

**Loctite® U-09FL™ Hysol®
Urethane Adhesive***Highly Flexible*

A two-part, high performance urethane adhesive for plastic bonding with a 10-minute worklife. Ultra clear, impact resistant, high peel.

**Loctite® U-09LV™ Hysol®
Urethane Adhesive***Low Viscosity*

A two-part, high performance urethane adhesive for plastic bonding with a 5-minute worklife.

NEW**REQUIRED
EQUIPMENT**

Equipment is sold separately. Please refer to the Dispensing section on pages 106 & 107 for a complete line of dual cartridge dispensers and mix nozzles.

LOCTITE® BRAND HYSOL® EPOXY
ADHESIVES PROPERTIES CHART

PRODUCT	Item Number	Container	Features	Color	Viscosity at 25°C	Worklife	Mix Ratio by Volume (resin:hardener)	Peel Strength (piw)	Overlap Shear Strength* (psi)	Tg (°C)	Hardness (Shore D)	Agency Approvals	
FAST SETTING	E-00CL™ Hysol®	29289 29290 29291	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Fast setting Flowable Low odor	Clear	Mixed - low Resin: 9,300 cP Hardener: 2,700 cP	3-5 min.	1:1	1-5	2,000-4,000	20	80	CFIA
	E-00NS™ Hysol®	29294 29295 29296	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Non-sag Controlled flow Low odor	Translucent	Mixed - high Resin: 375,000 cP Hardener: 2,800 cP	3-5 min.	1:1	1-5	2,000-4,000	20	80	CFIA
	E-05CL™ Hysol®	29299 29300 29301 29302 29303	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	Toughened High peel Low odor	Ultra clear	Mixed - low Resin: 1,900 cP Hardener: 2,800 cP	3-5 min.	1:1	5-30	2,000-4,000	10	55	CFIA
	608™ Hysol®	83086 83075 83082 83083	4 g foil pack 50 ml dual cartridge EPK 2.8 oz. kit 5 lb. kit	Fast cure Clear High strength	Clear	Mixed - medium Resin: 325,000 cP Hardener: 30,000 cP	5 min.	1:1	N/A	2,000	-	80	-
	D609™** Hysol®	83089	50 ml dual cartridge	Fast cure Ultra clear High strength	Ultra clear	Mixed - low Resin: 15,000 cP Hardener: 15,000 cP	5 min.	1:1	N/A	2,800	-	75	-
	615™ Hysol®	83094 83095	EPK 3.2 oz. kit 12 lb. kit	Fast cure Gap filling Sandable	Blue	Mixed - paste Resin: 700,000 cP Hardener: 140,000 cP	10 min.	1:1	N/A	2,500	-	65	-
GENERAL PURPOSE	1C™ Hysol®	83200 83202 83201	EPK 4 oz. kit 4 lb. kit 17 lb. kit	General purpose Gap-filling High temperature	White	Mixed - paste Resin: 235,000 cP Hardener: 710,000 cP	20 min.	2.5:1	N/A	1,750	98	80	-
	1C-LV™ Hysol®	83208 83207	50 ml dual cartridge 200 ml dual cartridge	General purpose Gap-filling Impact resistant	Light tan	Mixed - medium Resin: 82,000 cP Hardener: 36,200 cP	20 min.	2:1	N/A	2,100	-	75	-
	907™ Hysol®	83098	EPK 2.3 oz. kit	General purpose Minimal surface preparation	Light blue	Mixed - medium Resin: 100,000 cP Hardener: 150,000 cP	20 min.	1:1	N/A	3,100	-	79	-
	6C™ Hysol®	83211 83212	EPK 4 oz. kit 17 lb. kit	General purpose Bonds and seals Machineable Gap-filling	Grey	Mixed - paste Resin: 235,000 cP Hardener: 710,000 cP	25 min.	2.5:1	N/A	1,750	98	80	-
	11C™ Hysol®	83186	EPK 4 oz. kit	General purpose Bonds and seals Machineable	Black	Mixed - paste Resin: 235,000 cP Hardener: 710,000 cP	25 min.	2.5:1	N/A	1,750	98	80	-
	0151™ Hysol®	83069 83176 83179 83178	50 ml dual cartridge EPK 3.3 oz. kit 2.6 lb. kit 10.7 lb. kit	General purpose Ultra clear Extended work life	Clear	Mixed - light paste Resin: 70,000 cP Hardener: 60,000 cP	50 min.	2.7:1	N/A	1,850	58	85	-
HIGH PERFORMANCE	9460F™ Hysol®	83225 83224	50 ml dual cartridge 200 ml dual cartridge	Impact resistant High shear High peel	Grey	Mixed - paste Resin: 225,000 cP Hardener: 175,000 cP	20 min.	1:1	40†	3,800	-	80	-
	E-20HP™ Hysol®	29314 29315 29316 29317 29318	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	High strength Rubber toughened High peel High shear Fast setting	Off white	Mixed - medium Resin: 65,000 cP Hardener: 7,000 cP	20 min.	2:1	20-70	3,000-5,000	60	80	CFIA
	9433™ Hysol®	83119	50 ml dual cartridge	Self-leveling High strength High peel	Cream	Mixed - medium Resin: 174,000 cP Hardener: 115,000 cP	30 min.	2:1	45†	3,800	-	75	-
	9430™ Hysol®	83114 83113	2 lb. kit 10 lb. kit	High strength High peel	Off white	Mixed - light paste Resin: 300,000 cP Hardener: 40 cP	40 min.	4:1	60†	4,700	-	75	-

* Tested on aluminum lap shears.

** Formerly Dexter® Hysol® 609.

†ASTM D3167.

N/A = Not available at time of printing.

EPK = Epoxi-Patch® Kit.

LOCTITE® BRAND HYSOL® EPOXY
ADHESIVES PROPERTIES CHART

PRODUCT	Item Number	Container	Features	Color	Viscosity at 25°C	Worklife	Mix Ratio by Volume (resin:hardener)	Peel Strength* (piw)	Overlap Shear Strength* (psi)	Tg (°C)	Hardness (Shore D)	Agency Approvals	
HIGH PERFORMANCE	9460™ Hysol®	83129 83128 83131 83130 83133 83134	50 ml cartridge 200 ml cartridge 5 lb. kit 20 lb. kit 50 lb. pail, hardener 50 lb. pail, resin	High peel Impact resistant High viscosity Non-sag	Grey	Mixed - paste Resin: 225,000 cP Hardener: 175,000 cP	40 min.	1:1	35†	3,200	-	80	-
	E-40FL™ Hysol®	29304 29305 29306	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Toughened Flexible Impact resistant	Grey	Mixed - medium Resin: 75,000 cP Hardener: 65,500 cP	40 min.	1:1	5-40	1,000-3,000	30	75	CFIA
	9462™ Hysol®	83142 83135	50 ml cartridge 200 ml cartridge	Impact Resistant Toughened Non-sag	Beige	Mixed - medium Resin: 82,500 cP Hardener: 52,500 cP	50 min.	1:1	20†	3,500	-	77	-
	E-60HP™ Hysol®	29319 29320** 29321 29322 29323	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	High strength Toughened High peel High shear	Off-White	Mixed - medium Resin: 67,500 cP Hardener: 7,000 cP	60 min.	2:1	20-70	3,000-5,000	70	80	CFIA
	E-90FL™ Hysol®	29309 29310** 29311	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Toughened Flexible Impact resistant	Grey	Mixed - medium Resin: 71,500 cP Hardener: 19,000 cP	90 min.	1:1	5-40	1,000-3,000	-5	60	CFIA
	9460PB™ Hysol®	83233 83232	5 lb. kit 20 lb. kit	Bonds printing blanket stock High strength	Grey	Mixed - paste Resin: 225,000 cP Hardener: 100,000 cP	100 min.	1:1	N/A	2,000	-	-	-
	E-120HP™ Hysol®	29353 29354 29355 29356 29357	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	Ultra strength Non-sag Aerospace grade	Amber	Mixed - high Resin: 41,500 cP Hardener: 2,800 cP	120 min.	2:1	20-50	3,000-6,000	90	85	CFIA
HIGH TEMP.	9739™ Hysol®	83149 83150	42 lb. pail, hardener 168 lb. pail, resin	High temperature resistance High chemical resistance	Black	Mixed - paste Resin: 1,400,000 cP Hardener: 2,250,000 cP	90 min.	3.3:1	N/A	2,500	-	-	-
ADHESION SPECIFIC	E-20NS™ Hysol®	29334 29335 29336 29337 29338	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	Metal bonder Non-sag High peel High shear	Light tan	Mixed - paste Resin: 60,000 cP Hardener: 30,000 cP	20 min.	2:1	5-30	2,000-4,000	87	90	CFIA
	E-30CL™ Hysol®	29329 29330 29331	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Glass bonder Low viscosity Impact resistant	Ultra clear	Mixed - low Resin: 10,500 cP Hardener: 2,200 cP	30 min.	2:1	5-30	2,000-4,000	70	85	CFIA
POTTING	E-60NC™ Hysol®	29324 29325 29326	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Potting†† Electrically non-corrosive Low viscosity	Black opaque	Mixed - low Resin: 6,200 cP Hardener: 13,000 cP	60 min.	1:1	1-5	1,000-3,000	55	85	CFIA
	9412™ Hysol®	83108 83107	2 lb. kit 10 lb. kit	Potting†† High strength Self-leveling	Pink	Mixed - low Resin: 15,000 cP Hardener: 40 cP	60 min.	3.5:1	35†	4,000	-	75	-
ONE-PART	9459™ Hysol®	83126	10 lb. can	High temperature resistance Self-leveling High chemical resistance	White	Low 39,000 cP	60 min.	1 part	N/A	3,000	-	-	-
	E-214HP™ Hysol®	29339 29340	30 ml cartridge 300 ml cartridge	High strength Temperature resistant Non-sag	Grey	Paste 150,000 cP	Heat cure	1 part	30-70	3,000-6,000	120	85	-
	9432NA™ Hysol®	83217 83216	2 lb. can 55 lb. pail	Non-sag Surface insensitive High temperature	Grey	Paste 225,000 cP	N/A	1 part	8	3,800	-	90	-

* Tested on aluminum lap shears.

† ASTM D3167.

†† For additional potting and encapsulating products, refer to page 40.

N/A = Not available at time of printing.

** Made-to-order item.

LOCTITE® BRAND HYSOL® URETHANE ADHESIVES PROPERTIES CHART

PRODUCT	Item Number	Container	Features	Color	Viscosity @ 25°C	Worklife	Mix Ratio by Volume (resin:hardener)	Peel Strength* (piw)	Overlap Shear Strength* (psi)	Tg (°C)	Hardness (Shore D)	Agency Approvals	
POLYURETHANES	U-05FL™ Hysol®	29348 29349 29350	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge	Metal bonder Highly flexible High strength	Off white	Mixed - low Resin: 640 cP Hardener: 35,000 cP	5 minutes	1:2	5-30	1,000-3,000	48	45	CFIA
	U-09FL™ Hysol®	29460 29461 29462 29370** 29371**	50 ml dual cartridge 200 ml dual cartridge 400 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	Plastic bonder Highly flexible High peel	Ultra clear	Mixed - low Resin: 10,000 cP Hardener: 1,150 cP	10 minutes	1:1	5-30	500-2,000	-20	45	-
	U-09LV™ Hysol®	38588 38589 38590** 38591**	50 ml dual cartridge 200 ml dual cartridge 5 gallon pail, resin 5 gallon pail, hardener	Plastic bonder Highly flexible High peel Low viscosity	Ultra clear	Mixed - very low Resin: 920 cP Hardener: 1,030 cP	10 minutes	1:1	N/A	500-2,000	N/A	45	-

* Varies with substrates.
** Made-to-order item.



SUBSTRATE SELECTOR GUIDE

Loctite® brand Hysol® Structural Adhesives Bond to a Variety of Substrates

Simply determine which substrates you're bonding and find the adhesive recommendations in the table below. Refer to the previous charts for typical performance properties of the recommended adhesive. These recommendations should be used as a starting point only. It is recommended to evaluate the selected product in your application to determine suitability.

	Metals	Thermo-Plastics	Thermoset Plastics	Rubber	Glass	Ceramic	Masonry	Wood	Leather	Paper/ Hardboard
Metals	E-20NS™ E-214HP™ U-05FL™	U-05FL™ E-40FL™ E-20HP™ 9430™	E-20NS™ E-20HP™ E-120HP™ 608™	U-05FL™ E-40FL™ U-09LV™ 9460™	E-30CL™ E-20NS™ U-05FL™ 0151™	E-20HP™ E-30CL™ U-05FL™ E-20NS™ 9430™	E-20HP™ E-120HP™ E-20NS™ E-40FL™ 9432NA™	E-00NS™ E-20HP™ E-40FL™ 608™	U-05FL™ E-40FL™ U-09LV™ 9460™	E-05CL™ E-40FL™ E-00CL™ D609™
Thermo-Plastics	U-05FL™ E-40FL™ E-20HP™ 615™	U-05FL™ U-09LV™ E-40FL™ 615™	U-05FL™ U-09LV™ E-40FL™ 615™	U-05FL™ E-40FL™ U-09LV™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-40FL™ E-05CL™ E-20HP™ 615™	E-05CL™ E-40FL™ E-20HP™ 11C™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-05CL™ E-40FL™ E-20HP™ 9433™
Thermoset Plastics	E-20HP™ E-20NS™ E-120HP™ 615™	U-05FL™ U-09LV™ E-40FL™ 615™	E-20HP™ E-120HP™ E-214HP™ 615™	U-05FL™ E-20HP™ E-40FL™ 9460™	E-30CL™ U-05FL™ E-00CL™ 0151™	E-30CL™ E-20HP™ E-40FL™ 9433™	E-20HP™ E-120HP™ E-00CL™ E-40FL™ 9432NA™	E-20HP™ E-40FL™ E-00NS™ 11C™	E-05CL™ U-09LV™ E-40FL™ 615™	E-40FL™ E-00CL™ U-05FL™ D609™
Rubber	U-05FL™ E-40FL™ U-09LV™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	U-05FL™ E-40FL™ E-20HP™ 9433™	E-40FL™ E-90FL™ U-05FL™ 9460™	U-05FL™ E-40FL™ U-09LV™ 9460™	U-05FL™ E-40FL™ U-09LV™ 9460™	E-40FL™ E-90FL™ E-05CL™ 9460™	E-40FL™ E-05CL™ E-20HP™ 9433™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-40FL™ E-05CL™ U-09LV™ 9460™
Glass	E-20NS™ E-30CL™ U-05FL™ 0151™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-00CL™ E-30CL™ U-05FL™ D609™	E-05CL™ U-05FL™ U-09LV™ 615™	E-30CL™ E-00CL™ U-09LV™ D609™	E-30CL™ E-20NS™ U-05FL™ 0151™	E-30CL™ E-00NS™ E-20HP™ 0151™	E-30CL™ E-40FL™ E-00CL™ D609™	E-40FL™ E-05CL™ U-09LV™ 615™	E-05CL™ E-40FL™ E-30CL™ 9460™
Ceramic	E-20NS™ E-30CL™ E-20HP™ 9430™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-40FL™ E-20HP™ E-30CL™ 9433™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-30CL™ E-00CL™ U-05FL™ D609™	E-20HP™ E-30CL™ E-120HP™ 9433™	E-00NS™ E-20HP™ E-20NS™ 608™	E-20HP™ E-40FL™ E-00NS™ 608™	E-40FL™ E-05CL™ U-09LV™ 9460™	E-40FL™ E-05CL™ E-00CL™ D609™
Masonry	E-20NS™ E-20HP™ E-120HP™ 9433™	E-40FL™ E-20HP™ E-05CL™ 9433™	E-20HP™ E-120HP™ E-00CL™ D609™	E-40FL™ E-90FL™ E-05CL™ 615™	E-30CL™ E-00NS™ E-20HP™ 0151™	E-00NS™ E-20HP™ E-20NS™ 9433™	E-20HP™ E-00NS™ E-120HP™ 608™	E-20HP™ E-00NS™ E-40FL™ 9433™	E-05CL™ E-40FL™ U-05FL™ 9460™	E-05CL™ E-00CL™ E-20HP™ D609™
Wood	E-20HP™ E-40FL™ E-00NS™ 9433™	E-40FL™ E-05CL™ E-20HP™ 11C™	E-20HP™ E-40FL™ E-00NS™ 11C™	E-40FL™ E-05CL™ E-20HP™ 9433™	E-30CL™ E-40FL™ E-00CL™ 0151™	E-20HP™ E-40FL™ E-00NS™ 608™	E-20HP™ E-00NS™ E-40FL™ 608™	E-00CL™ E-20HP™ E-40FL™ 11C™	E-05CL™ E-40FL™ E-90FL™ 615™	E-00CL™ E-20HP™ E-40FL™ D609™
Leather	E-40FL™ U-05FL™ U-09LV™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-05CL™ U-09LV™ E-40FL™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-40FL™ E-05CL™ U-09LV™ 9460™	E-40FL™ E-05CL™ U-09LV™ 9460™	E-05CL™ E-40FL™ U-05FL™ 615™	E-05CL™ E-40FL™ E-90FL™ 9460™	U-05FL™ U-09LV™ E-40FL™ 9460™	E-05CL™ E-40FL™ U-05FL™ 9460™
Paper/ Hardboard	E-40FL™ E-05CL™ E-00CL™ D609™	E-40FL™ E-05CL™ E-20HP™ 9433™	E-40FL™ E-05CL™ U-05FL™ 9460™	E-40FL™ E-05CL™ U-09LV™ 9460™	E-05CL™ E-40FL™ E-30CL™ 0151™	E-40FL™ E-05CL™ E-00CL™ D609™	E-05CL™ E-00CL™ E-20HP™ D609™	E-00CL™ E-20HP™ E-40FL™ 9460™	E-05CL™ E-40FL™ U-05FL™ 615™	E-05CL™ E-40FL™ E-00CL™ D609™

Thermoplastics: ABS, PC, Acrylic, Nylon, SAN, PVC

Thermoset Plastics: Epoxy, Phenolic, Polyester, DAP

Rubber: Butyl, Neoprene, Nitrile, SBR, Natural, EPDM