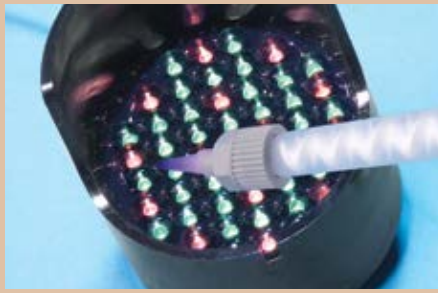


Potting, Molding & Encapsulating



97	POTTING, MOLDING & ENCAPSULATING
99	Epoxies & Polyurethanes
103	Silicones
106	Silicone Equipment
107	Hot Melts
109	Hot Melt Equipment
111	Low Pressure Molding

Potting and encapsulating compounds are used to provide mechanical reinforcement to housed assemblies, to fill large voids, and to protect components from the effects of exposure to chemicals, moisture, mechanical shock and vibration. Sealing components with potting and encapsulating compounds prevents corrosion and ensures long-term integrity of the device.

VARIABLES TO CONSIDER WHEN SELECTING A POTTING OR ENCAPSULATING MATERIAL INCLUDE:

- Viscosity of uncured compound
- Dispensing requirements
- Device operating temperature
- Desired chemical resistance
- Desired thermal conductivity
- Desired flame retardance
- Hardness of cured product
- Overall cost

There are a variety of potting and encapsulating compounds to choose from – epoxy, hot melt, silicone and urethane. The thermal properties of epoxy and silicone systems make them ideally suited for applications exposed to temperatures above 257°F (125°C). If a soft, flexible material is needed, particularly at low temperatures, then a urethane, silicone or hot melt material may be used.

WHAT IS THE BEST PRODUCT FOR MY APPLICATION?

The following chart may assist you when selecting a potting or encapsulating compound. This chart is intended to serve as a general guideline to help you determine which categories are best suited for your application. The data presented represents typical properties for each product category; however, individual product properties may differ. It is suggested that, based on the information provided, you consider at least the two best product categories that meet your application criteria. Individual product information can then be found on the pages that follow to help you narrow your search.

Henkel Adhesive and Sealant Product Specialists are available to assist you with new product designs, or to help you re-engineer an existing application for improved performance and cost savings. They can also set up testing of your parts at the Henkel Customer Engineering Center. For application assistance, call **1-800-LOCTITE (562-8483)**; within Canada, call **1-800-263-5043**; or, contact us through the web at www.henkelna.com/loctite.

STRAIGHT FROM *The Source*



Potting, Molding & Encapsulating

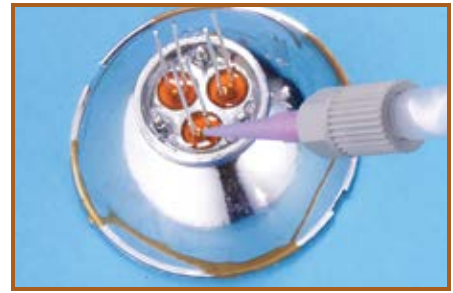
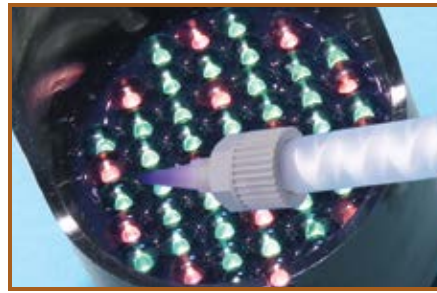
PERFORMANCE CONSIDERATIONS	POTTING & ENCAPSULATING COMPOUNDS			
	HOT MELTS	POLYURETHANES	EPOXIES	SILICONES
BENEFITS	Fast, large gap filling	Excellent toughness/flexibility	Wide range of formulations	Excellent temperature resistance
LIMITATIONS	Low heat resistance	Liquid adhesive sensitive to moisture	Mixing required	Low strength
TEMPERATURE RESISTANCE	-85°F to 257°F (-65°C to 125°C)	-85°F to 257°F (-65°C to 125°C)	-85°F to 356°F (-65°C to 180°C)	-85°F to 392°F (-65°C to 200°C)
FLUID RESISTANCE				
POLAR SOLVENTS ¹	Good (Polyolefins, Polyamides)	Good	Very Good	Good
NON-POLAR SOLVENTS ²	Good (Polyamides)	Good	Excellent	Poor
HARDNESS	Semisoft	Soft	Rigid	Soft
FLEXIBILITY	High	High	Low	Very High
GLASS TRANSITION TEMPERATURE (TG)	Low	Low	High	Very Low
PERFORMANCE CONSIDERATIONS	POTTING & ENCAPSULATING COMPOUNDS			
	HOT MELTS	POLYURETHANES	EPOXIES	SILICONES
NUMBER OF COMPONENTS	1	2	2	1
CURE TEMPERATURE	Room Temperature (applied at elevated temperature)	Room Temperature	Room Temperature	UV/Room Temperature
GEL TIME				
AVERAGE	60 seconds	1 to 3 hours	1 to 3 hours	30 seconds
FASTEST	10 to 20 seconds	15 minutes	15 minutes	5 seconds
FULL CURE TIME	1 hour (or when cooled)	24 hours	24 hours	24 hours
DEPTH OF CURE	Unlimited	Unlimited	Unlimited	Shallow (<1.5 in.)
DISPENSING/CURING EQUIPMENT REQUIRED?	Yes	Yes	Yes	Yes
LIGHT CURE VERSIONS AVAILABLE?	No	No	Yes	Yes

¹ Examples of Polar Solvents: Water, Ethylene Glycol, Isopropyl Alcohol, Acetone.

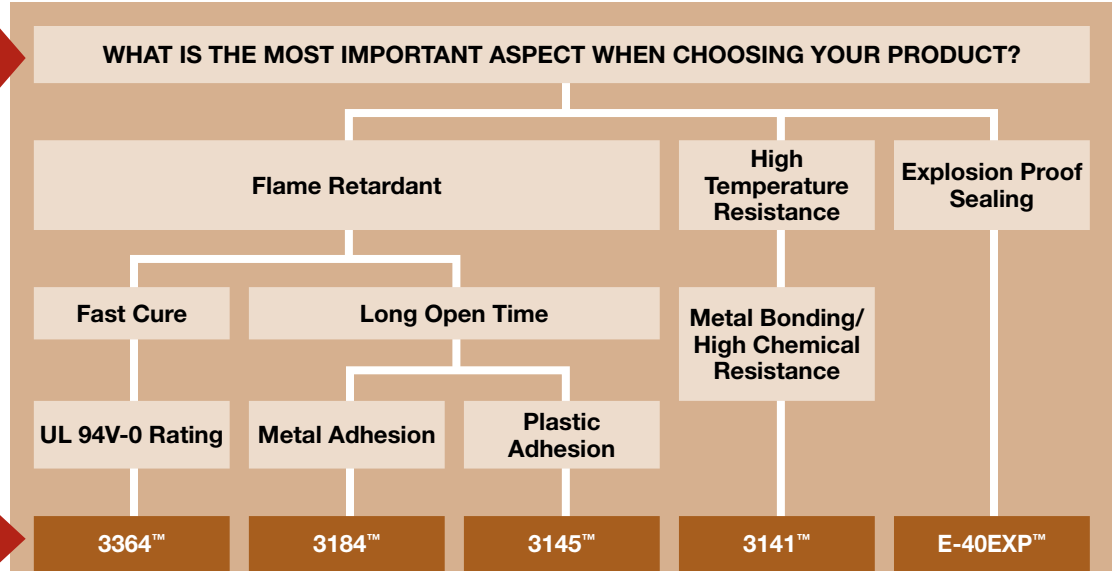
² Examples of Non-Polar Solvents: Motor Oil, Gasoline, Toluene, n-Heptane, ATF.

PLEASE NOTE: This chart should not be used to specify products without specific testing. It is recommended that you conduct on-part testing to ensure product performance before specifying any adhesives.

Epoxies & Polyurethanes



Your Application



Solution

Key Feature	Fast Cure, 1:2 Mix Ratio	Flame Retardant	Flame Retardant	High Temperature	Chemical Resistant
Color	Black	White	Mixed: Black	Mixed: Black	Black
Viscosity cP (Resin/Hardener)	N/A	N/A	5,315/13,355	Mixed: 7,000	N/A

Product Description

LOCTITE® 3364™ Hysol® Urethane Adhesive

Rigid two-component urethane designed for flame resistance and fast cure.

P/N Package Size
1166733 50 ml dual cartridge

LOCTITE® 3184™ Hysol® Polyurethane Hardener

A two-part polyurethane system to be used with LOCTITE® 3173™ Hysol® Resin to meet UL 94V-0 Flammability Rating at 3/8 in. thickness.

P/N Package Size
39398 1 gallon pail
39397* 5 gallon pail

LOCTITE® 3145™ Hysol® Epoxy Resin

A potting compound resin that is formulated to offer improved flame retardance when mixed with HYSOL® Epoxy Hardener (3160, 3162, 3163, 3164, 3165).

P/N Package Size
40512 1 gallon pail

LOCTITE® 3141™ Hysol® Epoxy Resin

Resin formulated to offer improved long-term performance at higher temperatures when mixed with a HYSOL® Epoxy Hardener (3160, 3162, 3163, 3164, 3165).

P/N Package Size
39947 1 gallon pail

LOCTITE® E-40EXP™ Hysol® Epoxy Adhesive

A two-component, room-temperature curing epoxy potting compound designed to pass UL testing and maintain more than 85% of its compression strength following exposure to 13 harsh chemicals.

P/N Package Size
1511653 200 ml dual cartridge
1511896 5 gallon pail - part A
1511897 5 gallon pail - part B

LOCTITE® DURAPUMP™ METER MIX SYSTEMS

LOCTITE® DuraPump™ Meter Mix Systems offer superior operating performance and durability for a wide range of two-component adhesive chemistries (including MMA**) up to 10:1 ratios and is available in two different models – programmable and pneumatic. For more product and technical information and other LOCTITE® Meter Mix systems, please go to [page 175](#).



ADDITIONAL RESOURCES

* Made-to-order item. ** Pneumatic only.

EPOXIES & POLYURETHANES

LOCTITE® Hysol® potting and encapsulating compounds are two-part epoxy and polyurethane systems formulated to offer a wide range of performance characteristics matched to specific application requirements. Any epoxy resin can be combined with any epoxy hardener to create a mixed system. The same applies to the polyurethane resins and hardeners.

LOCTITE® Hysol® Epoxy Product Chart

LOCTITE® PRODUCT		ITEM NUMBER	PACKAGE TYPE & SIZE	PACKAGE WEIGHT	KEY FEATURES
LOCTITE® HYSOL® EPOXIES RESINS	3140™	39944 39945*	1 gallon pail 5 gallon pail	12 lbs. 65 lb.	General-Purpose
	3141™	39947	1 gallon pail	12 lbs.	High Temperature
	3142™	39950	1 gallon pail	16 lbs.	Thermally Conductive
	3145™	40512	1 gallon pail	13 lbs.	Flame Retardant
LOCTITE® HYSOL® EPOXIES HARDENERS	3160™	39958*	5 gallon pail	40 lbs.	Glossy Surface Finish
	3162™	39960	1 quart can	1.8 lbs.	Fast Cure
	3163™	39964 39966*	1 quart can 5 gallon pail	1.7 lbs. 38 lbs.	Excellent Adhesion
	3164™	39970*	5 gallon pail	40 lbs.	General-Purpose
	3165™	39395	1 quart can	1.7 lbs.	Low Shrinkage

LOCTITE® Hysol® Polyurethane Product Chart

LOCTITE® PRODUCT		ITEM NUMBER	PACKAGE TYPE & SIZE	PACKAGE WEIGHT	KEY FEATURES
LOCTITE® HYSOL® POLYURETHANES RESINS	3173™	39984 39985 39986*	1 quart can 1 gallon pail 5 gallon pail	2.5 lbs. 10 lbs. 50 lbs.	General-Purpose
	3182™	39995 39996* 39997*	1 gallon pail 5 gallon pail 55 gallon drum	12 lbs. 62 lbs. 625 lbs.	Fast Cure
LOCTITE® HYSOL® POLYURETHANES HARDENERS	3183™	39998 39999*	1 gallon pail 5 gallon pail	7.5 lbs. 37 lbs.	General-Purpose
	3184™	39398 39397*	1 gallon pail 5 gallon pail	12 lbs. 60 lbs.	Flame Retardant

LOCTITE® Hysol® Epoxy Kit Properties Chart

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR	WORK LIFE	SHORE HARDNESS	AGENCY APPROVALS	KEY FEATURES
LOCTITE® HYSOL® EPOXY KITS E-60NC™	29324	50 ml dual cartridge	Black	60 min.	D 85	CFIA Listed	Electrically noncorrosive, low viscosity
	29325	200 ml dual cartridge					
	29326	400 ml dual cartridge					
LOCTITE® HYSOL® EPOXY KITS E-30CL™	29329	50 ml dual cartridge	Clear	30 min.	D 85	N/A	Medium fixture, chemical resistant
	29330	200 ml dual cartridge					
	29331	400 ml dual cartridge					
LOCTITE® HYSOL® EPOXY KITS E-40EXP™	1511653	200 ml dual cartridge	Black	35 min.	D 80	UL 674	Chemical resistant, use in hazardous locations
	1511896	5 gallon pail - part A					
	1511897	5 gallon pail - part B					

ITEMS IN RED = Source's PICK or NEW

LOCTITE® Hysol® Polyurethane Kit Properties Chart

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR	WORK LIFE	SHORE HARDNESS	AGENCY APPROVALS	KEY FEATURES
LOCTITE® HYSOL® POLYURETHANE KIT 3364™	1166733	50 ml dual cartridge	Black	45 sec.	D 80	UL 94V-0	Fast cure, 1:2 mix ratio, black

LOCTITE® Hysol® Polyurethane System Properties Chart

SYSTEM CHARACTERISTICS		LOCTITE® HYSOL® POLYURETHANE SYSTEMS			
		3173™/3182™	3173™/3183™	3173™/3184™	
TYPICAL UNCURED PROPERTIES	VISCOSITY (cP)	Resin	75	75	75
		Hardener	30,000	800	14,000
		Mixed	5,500	450	2,250
TYPICAL UNCURED PROPERTIES	WORKING TIME	At 73°F (23°C)	<7 minutes @ 300 g	20 to 40 minutes @ 105 g	150 minutes @ 300 g
	GEL TIME	At 73°F (23°C)	14 minutes @ 300 g	40 to 70 minutes @ 105 g	150 minutes @ 300 g
		Normal 73°F (23°C)	90 minutes	24 hours	24 hours
TYPICAL UNCURED PROPERTIES	CURE CYCLE	Alternate 185°F (85°C)	30 minutes	1 to 3 hours	1 to 3 hours
		MIX RATIO	By Weight (Resin : Hardener)	13:87	30:70
TYPICAL UNCURED PROPERTIES	COLOR	By Volume (Resin : Hardener)	1:5.2	1:3	1:4.8
		Resin	Dark Brown	Clear Brown	Clear Brown
TYPICAL UNCURED PROPERTIES	SPECIFIC GRAVITY	Hardener	Black	Opaque Black	Opaque White
		Mixed	Black	Opaque Black	Opaque White
		Resin	1.23	1.23	1.23
TYPICAL UNCURED PROPERTIES	SHORE HARDNESS	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	GLASS TRANSITION TEMPERATURE/Tg (°C)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	SHORE HARDNESS	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	GLASS TRANSITION TEMPERATURE/Tg (°C)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	CTE ABOVE Tg (M/MM°C)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	DIELECTRIC CONSTANT	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	DISSIPATION FACTOR	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	INSULATION RESISTANCE (OHMS)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	VOLUME RESISTIVITY (OHMS/CM)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	DIELECTRIC STRENGTH (VOLTS/MIL)	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	FLAMMABILITY RATING	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23
TYPICAL CURED PROPERTIES	UL FILE NO. E257711	Hardener	1.60	0.96	1.45
		Mixed	1.55	1.06	1.40
		Resin	1.23	1.23	1.23

Epoxies & Polyurethanes



SYSTEM CHARACTERISTICS		LOCTITE® 3140™ HYSOL® EPOXY SYSTEM					LOCTITE® 3141™ HYSOL® EPOXY SYSTEM					
		3140™/3160™	3140™/3162™	3140™/3163™	3140™/3164™	3140™/3165™	3141™/3160™	3141™/3162™	3141™/3163™	3141™/3164™	3141™/3165™	
TYPICAL UNCURED PROPERTIES	VISCOSITY (cP)	Resin	11,000	11,000	11,000	11,000	11,000	80,000	80,000	80,000	80,000	80,000
		Hardener	180	120	450	105	55	180	120	450	105	55
		Mixed	1,700	2,000	1,500	1,500	2,000	7,000	5,000	4,000	6,000	13,000
	WORKING TIME	73°F (25°C)	80 to 100 min. @ 200 g	5 to 10 min. @ 100 g	80 to 100 min. @ 200 g	10 to 15 min. @ 400 g	to 1.5 hrs. @ 400 g	1.5 to 2 hrs. @ 400 g	5 min. @ 200 g	30 to 45 min. @ 200 g	10 min. @ 400 g	35 to 40 min. @ 200 g
	GEL TIME	73°F (25°C)	2.5 to 3 hrs. @ 200 g	10 to 15 min. @ 105 g	2.5 to 3 hrs. @ 200 g	25 to 35 min. @ 400 g	2 to 3 hrs. @ 400 g	2.5 to 3.5 hrs. @ 400 g	10 to 15 min. @ 200 g	60 to 80 min. @ 200 g	20 to 25 min. @ 200 g	65 to 75 min. @ 200 g
	CURE CYCLE	Normal 73°F (25°C)	24 hrs.	16 hrs.	24 hrs.	16 hrs.	24 hrs. @ 77°F + 4 hrs. @ 200°F	24 hrs.	24 hrs.	24 hrs.	24 hrs.	24 hrs. @ 77°F + 4 hrs. @ 200°F
		Alternate 150°F (60°C)	2 hrs.	1 hr.	2 hrs.	2 hrs.	N/A	4 hrs.	2 hrs.	2 hrs.	2 hrs.	N/A
	MIX RATIO	By Weight (R:H)	100:20	100:18.1	100:29	100:29.5	100:9	4:1	100:19.8	100:30	100:31.5	100:9
		By Volume (R:H)	3.1:1	3.6:1	2:1	2:1	6.5:1	2.5:1	3:1	2:1	2:1	6.5:1
	COLOR	Resin	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black
Hardener		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Amber	Amber	Clear	
Mixed		Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	
SPECIFIC GRAVITY	Resin	1.64	1.64	1.64	1.64	1.64	1.61	1.61	1.61	1.61	1.61	
	Hardener	1.00	0.99	0.96	0.97	0.96	1.00	0.99	0.96	0.97	0.96	
	Mixed	1.48	1.48	1.41	1.42	0.96	1.44	1.46	1.40	1.40	1.40	
TYPICAL CURED PROPERTIES	SHORE HARDNESS	D 80	D 80	D 80	D 70	D 85	D 85	D 90	D 80	D 85	D 85	
	GLASS TRANSITION TEMPERATURE/Tg (°C)	27	35	20	27	67	43	75	38	31	104	
	CTE ABOVE Tg (MM/MM°C)	130x10e-6	125x10e-6	133x10e-6	150x10e-6	119x10e-6	160x10e-6	135x10e-6	138x10e-6	111x10e-6	115x10e-5	
	CTE BELOW Tg (MM/MM°C)	44x10e-6	37.5x10e-6	44.9x10e-6	82.6x10e-6	36.0x10e-6	60.7x10e-6	39.7x10e-6	52.6x10e-6	49.2x10e-6	35x10e-6	
	DIELECTRIC CONSTANT	0.1 kHz	4.43	4.25	4.61	4.2	4.87	4.30	3.91	3.58	4.11	4.28
		1.0 kHz	4.37	4.20	4.37	4.0	4.83	4.22	3.88	3.52	3.97	4.18
		10.0 kHz	4.31	4.16	4.20	3.8	4.75	4.14	3.84	3.46	3.87	4.06
100.0 kHz		4.24	4.10	4.05	3.7	4.64	4.03	3.79	3.39	3.77	3.92	
TYPICAL ELECTRICAL PROPERTIES	DISSIPATION FACTOR	0.1 kHz	0.008	0.010	0.040	0.08	0.003	0.01	0.01	0.01	0.02	0.01
		1.0 kHz	0.008	0.011	0.027	0.04	0.007	0.01	0.01	0.01	0.02	0.02
		10.0 kHz	0.010	0.012	0.026	0.03	0.011	0.02	0.01	0.01	0.02	0.02
		100.0 kHz	0.014	0.013	0.023	0.03	0.014	0.02	0.01	0.02	0.02	0.02
	INSULATION RESISTANCE (OHMS)	1.14x10e+13	2.67x10e+13	1.61x10e+12	7.5x10e+111	5.19x10e+13	5.72x10e+13	4.09x10e+13	1.23x10e+14	4.57x10e+13	2.15x10e+13	
VOLUME RESISTIVITY (OHMS/CM)	6.03x10e+14	2.53x10e+15	1.02x10e+14	1.5x10e+14	2.69x10e+15	4.03x10e+15	2.61x10e+15	7.41x10e+15	2.98x10e+15	1.37x10e+15		
DIELECTRIC STRENGTH (VOLTS/MIL)	365	385	365	410	355	375	355	385	395	365		
FLAMMABILITY RATING UL FILE NO. E257711	N/A	N/A	N/A	UL 94B @ 1/16 in.	N/A	N/A	N/A	N/A	N/A	N/A		
INSULATION SYSTEM UL FILE NO. E257711	N/A	N/A	N/A	UL 1446	N/A	N/A	N/A	N/A	N/A	N/A		

SYSTEM CHARACTERISTICS			LOCTITE® 3142™ HYSOL® EPOXY SYSTEM					LOCTITE® 3145™ HYSOL® EPOXY SYSTEM				
			3142™/3160™	3142™/3162™	3142™/3163™	3142™/3164™	3142™/3165™	3145™/3160™	3145™/3162™	3145™/3163™	3145™/3164™	3145™/3165™
TYPICAL UNCURED PROPERTIES	VISCOSITY (cP)	Resin	120,000 to 200,000	120,000 to 200,000	120,000 to 200,000	120,000 to 200,000	120,000 to 200,000	32,760	32,760	32,760	32,760	32,760
		Hardener	180	120	450	105	55	180	120	450	105	55
		Mixed	7,500	6,000	7,000	8,000	18,000	5,560	7,150	5,315	5,790	13,355
	WORKING TIME	77°F (25°C)	1.5 to 2 hrs. @ 400 g	5 to 10 min. @ 200 g	2 hrs. @ 400 g	25 min. @ 400 g	80 min. @ 400 g	2.5 to 4 hrs. @ 200 g	15 to 30 min. @ 200 g	3 to 3.5 hrs. @ 200 g	35 to 45 min. @ 200 g	2.5 to 3 hrs. @ 400 g
	GEL TIME	77°F (25°C)	3.5 to 4 hrs. @ 400 g	5 to 30 min. @ 200 g	>3 hrs. @ 400 g	50 min. @ 400 g	2.5 hrs. @ 400 g	6 to 8 hrs. @ 200 g	35 to 45 min. @ 200 g	6 to 7 hrs @ 200 g	75 to 90 min. @ 200 g	5 hrs. @ 200 g
	CURE CYCLE	Normal 77°F (25°C)	24 hrs.	24 hrs.	48 hrs.	24 hrs.	24 hrs. @ 77°F +4 hrs. @ 200°F	24 hrs.	24 hrs.	24 hrs.	24 hrs.	24 hrs. @ 77°F + 4 hrs. @ 200°F
		Alternate 150°F (66°C)	4 hrs.	2 hrs.	4 hrs.	2 hrs.	4 hrs. @ + 200°F	2 hrs.	2 hrs.	4 hrs.	2 hrs.	4 hrs. @ + 200°F
	MIX RATIO	By Weight (R:H)	100:10.7	100:9	100:10.9	100:14.3	100:4.1	100:15	100:13	100:15.5	100:20	100:6
		By Volume (R:H)	3.8:1	4.5:1	3.6:1	2.8:1	9.7:1	4:1	4.5:1	3.7:1	2.9:1	9.7:1
	COLOR	Resin	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black
Hardener		Clear	Clear	Amber	Amber	Clear	Clear	Clear	Clear	Clear	Clear	
Mixed		Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	
SPECIFIC GRAVITY	Resin	2.40	2.40	2.40	2.40	2.40	1.67	1.67	1.67	1.67	1.67	
	Hardener	1.00	0.99	0.96	0.97	0.96	1.00	0.99	0.96	0.97	0.96	
	Mixed	1.54	1.54	1.53	1.50	1.62	1.51	1.54	1.49	1.49	1.58	
TYPICAL CURED PROPERTIES	SHORE HARDNESS		D 90	D 90	D 90	D 85	D 90	D 80	D 84	D 80	D 75	D 88
	GLASS TRANSITION TEMPERATURE/Tg (°C)		26	42	30	29	84	28	42	38	32	53
	CTE ABOVE Tg (MM/MM°C)		104x10e-6	97.2x10e-6	96.1x10e-6	106x10e-6	87.7x10e-6	1.22x10e-6	128x10e-6	130x10e-6	122x10e-6	111x10e-6
	CTE BELOW Tg (MM/MM°C)		29.2x10e-6	28.2x10e-6	33.5x10e-6	51.9x10e-6	26.9x10e-6	39.2x10e-6	42.6x10e-6	49.0x10e-6	59.4x10e-6	40.6x10e-6
	THERMAL CONDUCTIVITY	Watts/Meter°K	0.862/±0.010	0.953/±0.014	0.873/±0.017	0.801/±0.013	1.126/±0.017	0.7935	0.8068	0.8119	0.7324	1.0341
	DIELECTRIC CONSTANT	0.1 kHz	5.77	4.87	5.28	5.51	5.65	4.08	3.81	4.27	4.19	4.43
		1.0 kHz	5.69	4.83	5.20	5.35	5.57	4.28	3.85	4.36	4.46	4.45
		10.0 kHz	5.62	4.78	5.12	5.21	5.46	4.15	3.74	4.11	4.22	4.28
		100.0 kHz	5.52	4.72	5.02	5.06	5.34	4.00	3.63	3.90	3.99	4.11
	DISSIPATION FACTOR	0.1 kHz	0.00	0.01	0.01	0.02	0.01	0.027	0.028	0.033	0.036	0.045
1.0 kHz		0.001	0.01	0.01	0.02	0.01	0.031	0.025	0.046	0.042	0.036	
10.0 kHz		0.01	0.01	0.01	0.02	0.01	0.025	0.021	0.037	0.037	0.027	
100.0 kHz		0.01	0.01	0.01	0.02	0.01	0.023	0.017	0.031	0.034	0.024	
INSULATION RESISTANCE (OHMS)		4.61x10e+13	5.31x10e+13	3.65x10e+13	2.75x10e+12	4.09x10e+13	N/A	N/A	N/A	N/A	N/A	
VOLUME RESISTIVITY (OHMS/CM)		3.00x10e+15	3.47x10e+15	2.55x10e+15	1.65x10e+14	2.61x10e+15	1.10e+14	8.4e+14	2.1e+14	2.5e+13	7.3e+14	
DIELECTRIC STRENGTH (VOLTS/MIL)		360	345	355	345	335	595	693	748	695	794	
FLAMMABILITY RATING UL FILE NO. E257711		N/A	N/A	N/A	N/A	N/A	N/A	UL 94V-0 @ 1/8 in.	N/A	N/A	UL 94V-0 @ 1/8 in.	

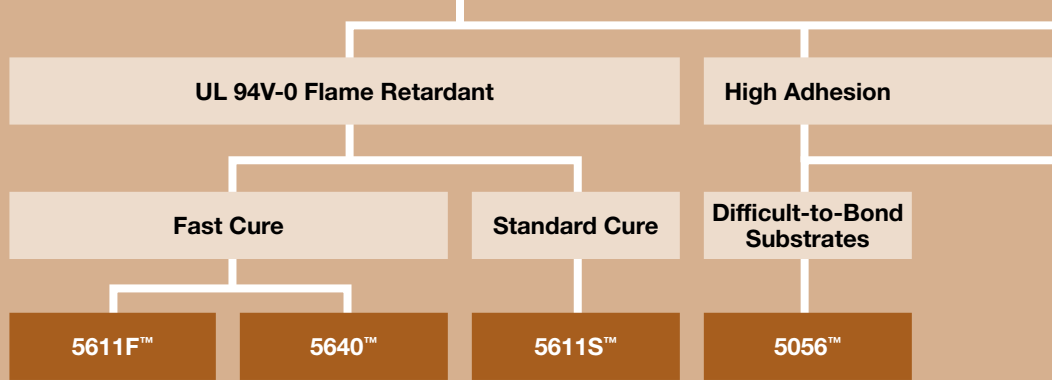
Silicones

Your Application

- Single-component, tough, protective
- Seal components against moisture, solvents and environmental conditions
- Cure in as little as 30 seconds to depths of 0.150 in. when exposed to UV light or visible light

Solution

WHAT IS THE MOST IMPORTANT ASPECT WHEN CHOOSING YOUR PRODUCT?



Key Feature	Flame Retardant (UL 94V-0 Rating)	Flame Retardant (UL 94V-0 Rating)	Flame Retardant (UL 94V-0 Rating)	ISO 10993 Compliant
Color	Grey	Grey	Grey	Clear/Yellowish Tint
Viscosity, cP (Resin/Hardener)	5,000/5,000	10,000/1,000	5,000/5,000	2,200

Product Description

LOCTITE® 5611F™ Silicone Potting Compound

Self-Leveling, Noncorrosive, Flame Retardant

Two-part, flame retardant (UL 94V-0) silicone. Products vary in cure speed and open times from fast (F) to standard (S) to match particular end-use applications. Grey in color.

P/N	Package Size
1385991	490 ml dual cartridge
1387908	4.5 gallon pail, part A
1387706	4.5 gallon pail, part B
1386373	575 lb. drum, part A
1432213	440 lb. drum, part B

LOCTITE® 5640™ Silicone Potting Compound

Self-Leveling, Noncorrosive, Flame Retardant

Two-part, self-leveling with a V-0 rating and an improved adhesion to plastics. Grey in color.

UL Listed.

P/N	Package Size
1738359	490 ml dual cartridge
1738366	55 gallon drum, part A
1738365	5 gallon pail, part B

LOCTITE® 5611S™ Silicone Potting Compound

Self-Leveling, Noncorrosive, Flame Retardant

Two-part, flame retardant (UL 94V-0) silicone. Products vary in cure speed and open times from fast (F) to standard (S) to match particular end-use applications. Grey in color.

P/N	Package Size
1386378	490 ml dual cartridge
1387908	4.5 gallon pail, part A
1388496	4.5 gallon pail, part B
1386373	575 lb. drum, part A
1387212	440 lb. drum, part B

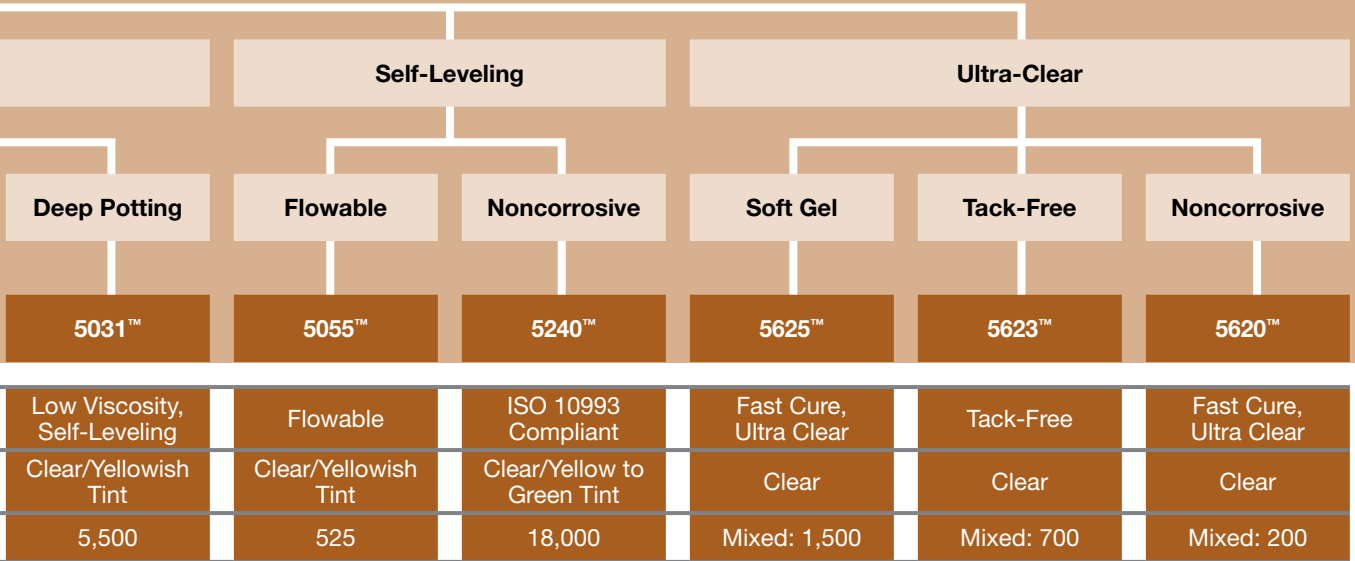
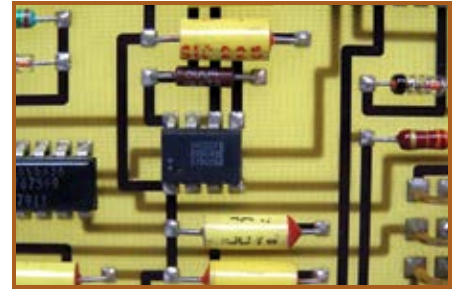
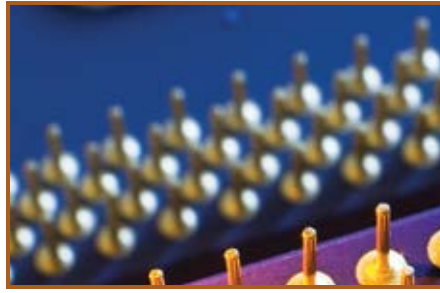
LOCTITE® 5056™ Silicone Adhesive Sealant

Self-Leveling/High Adhesion

A UV or visible light curing, noncorrosive silicone with very high bond strength. Ideal for high speed adhesion and sealing applications. High adhesion for difficult-to-bond substrates.

P/N	Package Size
1214249	25 ml syringe
1214250	1 liter bottle
1214248*	15 liter pail

* Made-to-order item.



LOCTITE® 5031™ Nuva-Sil® Silicone Potting Compound
High Adhesion/Visible Light
 A low viscosity, self-leveling, UV or visible light curing silicone for high speed deep potting, coating and sealing applications. Provides high adhesion for difficult-to-bond substrates.

P/N	Package Size
40086	300 ml cartridge
40087	40 lb. pail

LOCTITE® 5055™ Silicone Adhesive Sealant
Self-Leveling/Flowable
 A UV or visible light curing, noncorrosive silicone for high speed coating, potting adhesion, or sealing applications. High adhesion for difficult-to-bond substrates.

P/N	Package Size
1212167	25 ml syringe
1214246	1 liter bottle
1214247*	15 liter pail

LOCTITE® 5240™ Nuva-Sil® Medical Device Sealant
Self-Leveling/Noncorrosive
 A UV or visible light and moisture curing, noncorrosive silicone ideal for high speed adhesion and sealing applications. High adhesion for difficult-to-bond substrates.

P/N	Package Size
1010341	30 ml syringe
1010320	300 ml cartridge
1010343*	40 lb. pail

LOCTITE® 5625™ Silicone Potting Compound
Ultra-Clear/Tack-Free
 Two-part, ultra-clear, soft, noncorrosive silicone gel. Transparent in color. Very soft, re-enterable gel. Room temperature cure or accelerated heat cure.

P/N	Package Size
1257475	400 ml dual cartridge
1257616	40 lb. pail, part A
1257613	40 lb. pail, part B
1257617	400 lb. drum, part A
1257615	400 lb. drum, part B

LOCTITE® 5623™ Silicone Potting Compound
Ultra-Clear/Soft Gel
 Two-part, ultra-clear, tack-free, noncorrosive silicone gel. Transparent in color. Tough gel. Room temperature cure or accelerated heat cure.

P/N	Package Size
1259300	400 ml dual cartridge
1257611	40 lb. pail, part A
1257607	40 lb. pail, part B
1257612	400 lb. drum, part A
1257609	400 lb. drum, part B

LOCTITE® 5620™ Silicone Potting Compound
Ultra-Clear/Fast Cure
 Two-part, ultra-clear, fast cure, noncorrosive silicone. Transparent in color. Ideal for sealant, or potting applications that require a transparent silicone. Fast room temperature cure.

P/N	Package Size
1257478	400 ml dual cartridge
1257595	40 lb. pail, part A
1257597	40 lb. pail, part B
1257594	400 lb. drum, part A
1257596	400 lb. drum, part B

Silicones

105

Potting, Molding & Encapsulating

LOCTITE® Silicone Potting Compound Properties Chart

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	CURE SCHEDULE (Cure/Alt. Cure)	VISCOSITY (cP)	GEL TIME	SHORE HARDNESS	AGENCY APPROVALS
5031™ NUVA-SIL®	40086 40087	300 ml cartridge 40 lb. pail	UV/visible light/moisture 60 seconds @ 40 mW/cm ²	5,500	Seconds	A 34	N/A
5040™	40405 40404	85 g tube 300 ml cartridge	Moisture 24 hours @ 77°F (25°C)	35,000	<3 hours (skin over)	A 30	MIL-A-46146B
5055™	1212167 1214246 1214247*	25 ml syringe 1 liter bottle 15 liter pail	60 seconds @ 70 mW/cm ²	525	Seconds	A 55	ISO 10993 Compliant
5056™	1214249 1214250 1214248*	25 ml syringe 1 liter bottle 15 liter pail	60 seconds @ 70 mW/cm ²	2,200	Seconds	A 43	ISO 10993 Compliant
5091™ NUVA-SIL®	17412	300 ml cartridge	UV/moisture 60 seconds @ 40 mW/cm ²	5,500	Seconds	A 34	UL Classified for U.S.
5240™ NUVA-SIL®	1010341 1010320 1010343*	30 ml syringe 300 ml cartridge 40 lb. pail	60 seconds @ 70 mW/cm ²	18,000	Seconds	A 45	ISO 10993 Compliant
5611F™	1385991 1387908 1387706 1386373 1432213	490 ml dual cartridge 4.5 gallon pail, part A 4.5 gallon pail, part B 575 lb. drum, part A 440 lb. drum, part B	Two-Part 10:1 A:B by volume 11 minutes tack-free	Part A - 5,000 Part B - 5,000	19 minutes	A 55	UL 94V-0
5611S™	1386378 1387908 1388496 1386373 1387212	490 ml dual cartridge 4.5 gallon pail, part A 4.5 gallon pail, part B 575 lb. drum, part A 440 lb. drum, part B	Two-Part 10:1 A:B by volume 38 minutes tack-free	Part A - 5,000 Part B - 5,000	73 minutes	A 55	UL 94V-0
5620™	1257478 1257595 1257597 1257594 1257596	400 ml dual cartridge 40 lb. pail, part A 40 lb. pail, part B 400 lb. drum, part A 400 lb. drum, part B	Two-Part 30 minutes @ 77°F (25°C)	Part A - 220 Part B - 190 Mixed - 200	20 minutes**	A 35	N/A
5623™	1259300 1257611 1257607 1257612 1257609	400 ml dual cartridge 40 lb. pail, part A 40 lb. pail, part B 400 lb. drum, part A 400 lb. drum, part B	Two-Part 1 hour @ 212°F (100°C) 24 hours @ 77°F (25°C)	Part A - 700 Part B - 700 Mixed - 700	120 minutes**	00 40	N/A
5625™	1257475 1257616 1257613 1257617 1257615	400 ml dual cartridge 40 lb. pail, part A 40 lb. pail, part B 400 lb. drum, part A 400 lb. drum, part B	Two-Part 1 hour @ 212°F (100°C) 24 hours @ 77°F (25°C)	Part A - 1,000 Part B - 2,000 Mixed - 1,500	100 minutes**	00 2	N/A
5640™	1738359 1738366 1738365	490 ml dual cartridge 55 gallon drum, part A 5 gallon pail, part B	Two-Part 10:1 A:B by volume 38 minutes tack-free	Part A - 10,000 Part B - 1,000	5 minutes	A 30	UL 94-0

ITEMS IN RED = Source's PICK or NEW

* Made-to-order item.





** Pot life.



Silicone Equipment

YOUR EQUIPMENT Source

For more details, see the **LOCTITE® Equipment Sourcebook, LT-3669**, or visit us on the web for additional information, diagrams, products and our full line of equipment at www.equipment.loctite.com.



LOCTITE® PRODUCT		ITEM NUMBER	PRESSURE REGULATION	USED TO DISPENSE	PACKAGE TYPE & SIZES	VISCOSITY RANGE	LOW LEVEL SENSING	CONSUMABLES – DISPENSE ACCESSORIES	
PNEUMATIC CARTRIDGE DISPENSING									
CARTRIDGE DISPENSING		300 ML PNEUMATIC CARTRIDGE DISPENSING RETAINER	98319A	0 to 60 psi	Gel Cyanoacrylates, Anaerobic Gasketing, Light Cure / Acrylics, Silicones	300 ml cartridges	Low to Medium	Pneumatic	Cartridge Accessories – Page 177
		HD10 300 ML PNEUMATIC CARTRIDGE DISPENSER	1714379	0 to 60 psi	Gel Cyanoacrylates, Anaerobic Gasketing, Light Cure Acrylics, Silicones	300 ml cartridges 250 ml tubes	Medium to High	No	
		300 ML CARTRIDGE PUSHER	98022	0 to 50 psi	Gel Cyanoacrylates, Anaerobic Gasketing, Light Cure / Acrylics, Low Viscosity Silicones	300 ml cartridges 250 ml tubes	Medium	Yes	
		HIGH PRESSURE 300 ML BENCHTOP CARTRIDGE DISPENSER	1046901	0 to 725 psi	Silicone, Polyurethane, MS Polymer Adhesives	290 ml cartridges 300 ml cartridges 310 ml cartridges	10,000 to 1,000,000	Yes	

LOCTITE® PRODUCT		ITEM NUMBER	TYPE	VISCOSITY RANGE	DISPENSE PATTERNS	USED TO DISPENSE	STROKE ADJUSTMENT	SUCK-BACK	CONSUMABLES – DISPENSE ACCESSORIES
HIGH VISCOSITY FLUID & PASTE VALVES									
VALVES & PUMPS		VA 25 DISPENSE VALVE – 50 BAR	High Viscosity Fluid and Paste Valves	10,000 to 1,000,000 cP	Drop, Bead	Silicones, MS Polymers, Urethanes	Yes	Yes	Dispense Tips and Accessories – Pages 176-177
		HIGH PRESSURE DISPENSE VALVE – 150 BAR		500,000 to 2,000,000 cP			Yes	No	

ITEMS IN RED = Source's PICK or NEW

Your Source for Motion Control Robot Dispense Systems. See page 171.

EQUIPMENT – Henkel is a full-service supplier of LOCTITE® branded equipment and offers a wide variety of equipment services to its customers. **For more LOCTITE® branded equipment, go to page 165.**
Can't find what you're looking for? Visit www.equipment.loctite.com or call 1-800-LOCTITE (562-8483).

STRAIGHT FROM The Source

Hot Melts

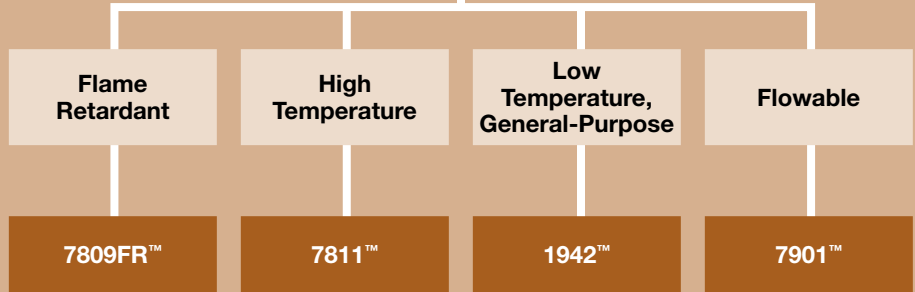


Your Application

- Well-suited for fast, deep potting applications requiring large gap fills in high speed manufacturing environments
- Used for potting and encapsulating in the electronics industry

Solution

WHAT IS THE MOST IMPORTANT ASPECT WHEN CHOOSING YOUR PRODUCT?



	7809FR™	7811™	1942™	7901™
Color	Amber	Amber	Tan	Amber
Viscosity (cP) at Dispense Temperature	7,000	4,250 to 6,400	5,000	750
Open Time (sec.)	35	35	30	35
Temperature Resistance	240°F	266°F	142°F	300°F

Product Description

LOCTITE® 7809FR™ Hysol®
Hot Melt Adhesive
Fire Retardant

Modified with fire retardant materials. It has a UL 94V-0 flammability rating.

P/N	Package Size
83675	Superstick 10 in. 32 lb. carton
83676	Polyshot 25 lb. pail

LOCTITE® 7811™ Hysol®
Hot Melt Adhesive
High Temperature

A high performance polyamide with exceptional high temperature resistance and impact resistance at low temperatures.

P/N	Package Size
83340	Polyshot 25 lb. pail
83338	40 lb. carton pellets

LOCTITE® 1942™ Hysol®
Hot Melt Adhesive
General-Purpose

Medium setting, general-purpose hot melt adhesive. Excellent adhesion to wood and many plastics. Not recommended for high temperature potting applications.

P/N	Package Size
83267	40 lb. carton pellets
83269	Maxistick 35 lb. carton
83274	Superstick 10 in. 25 lb. carton
83277	Polyshot 35 lb. carton

LOCTITE® 7901™ Hysol®
Hot Melt Adhesive
Polyamide

Low viscosity polyamide used extensively for potting and encapsulating.

P/N	Package Size
83342	40 lb. carton pellets



LOCTITE® Hysol® Hot Melt Adhesive Properties Chart

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR	VISCOSITY (cP) AT DISPENSE TEMPERATURE	TENSILE STRENGTH (psi)	OPEN TIME	TEMPERATURE RESISTANCE	% ELONGATION	SHORE HARDNESS	AGENCY APPROVALS
LOCTITE® HYSOL® HOT MELT ADHESIVES	1942™ HYSOL®	83267 83269 83274 83277	Tan	5,000	250	30 seconds	142°F	500	N/A	FDA CFR175.105
	7809FR™ HYSOL®	83675 83676	Amber	7,000	363	35 seconds	240°F	373	A 85	UL Classified for U.S.
	7811™ HYSOL®	83340 83338	Amber	4,250 6,400	400	35 seconds	266°F	1,200	N/A	N/A
	7901™ HYSOL®	83342	Amber	750	260	35 seconds	300°F	80	A 84	N/A

You can find more LOCTITE® Hot Melt Adhesives in the bonding section on [pages 13-16](#).

Please see [pages 109-110](#) for LOCTITE® Hot Melt applicators.








**ADDITIONAL
RESOURCES**

Hot Melt Equipment

YOUR EQUIPMENT Source

For more details, see the **LOCTITE® Equipment Sourcebook, LT-3669**, or visit us on the web for additional information, diagrams, products and our full line of equipment at www.equipment.loctite.com.























LOCTITE® PRODUCT		ITEM NUMBER	STICK DIAMETER	DISPENSE MELT RATE	DISPENSE POWER	DISPENSE TEMPERATURE	HOT MELT CHEMISTRY	HOT MELT NOZZLES & ACCESSORIES
1/2 INCH SUPERSTICK DISPENSERS								
	HYSOL® 050A	916282	1/2 in. Superstick Sticks	4 lbs./hr.	Manual	383°F (195°C)	EVA/Polyolefin	Hot Melt Nozzles and Accessories – Page 110
	HYSOL® 050A-HT	1597635	1/2 in. Superstick Sticks	4.4 lbs./hr.	Manual	419°F (215°C)	Polyamide	
3/4 INCH MAXISTICK DISPENSERS								
	HYSOL® 075	98033	3/4 in. Maxistick Sticks	9 lbs./hr.	Manual	360°F (182°C)	EVA	Hot Melt Nozzles and Accessories – Page 110
	HYSOL® 075-LT	98034	3/4 in. Maxistick Sticks	5 lbs./hr.	Manual	249°F (121°C)	CoolMelt™	
1 3/4 INCH SPRAYPAC™ & POLYSHOT DISPENSERS								
	HYSOL® 175-AIR	98036	1 3/4 in. Polyshot Sticks	8 lbs./hr.	Electric	383°F (195°C)	EVA/Polyolefin	Hot Melt Nozzles and Accessories – Page 110
	HYSOL® 175-AIR-HT	98040	1 3/4 in. Polyshot Sticks	8 lbs./hr.	Electric	419°F (215°C)	Polyamide	
	HYSOL® 175-SPRAY	98037	1 3/4 in. Polyshot Sticks	8 lbs./hr.	Electric	383°F (195°C)	EVA/Polyolefin	
	HYSOL® 175-SPRAY-HT	98041	1 3/4 in. Polyshot Sticks	8 lbs./hr.	Electric	419°F (215°C)	Polyamide	
	HYSOL® 175	98035	1 3/4 in. Polyshot Sticks	6.6 lbs./hr.	Manual	383°F (195°C) and 419°F (215°C)*	EVA/Polyolefin and Polyamide	
URETHANE DISPENSER								
	HYSOL® REACTIVE URETHANE CARTRIDGE DISPENSER	98011	N/A	3 lbs./hr.	Air	249°F (121°C)	Reactive Urethane	Hot Melt Nozzles and Accessories – Page 110

* The LOCTITE® Hysol® 175 Dispenser (manual electric) is supplied with both temperature modules.

For custom hot melt dispense nozzles, contact the Special Equipment Group of Henkel at 1-800-LOCTITE (562-8483).

STRAIGHT FROM *The Source*

LOCTITE® PRODUCT	ITEM NUMBER	DESCRIPTION	USED WITH
	1611450	Replacement Nozzle/Check Valve	1597635
	419115 (SINGLE PACK)	Adapter/Check Valves for Nozzles	98035, 98036, 98040
	916050 (5 PACK)		916282
	ANZ023N01	Standard Nozzle Adapter with Check Valve and Jam Nut	98033, 98034
	985225 (5 PACK)	1-Hole Nozzle 0.08" diameter cone tip (5 pack)	98033, 98034, 98035, 98036, 98040
	985110	2-Hole Nozzle 0.06" diameter x 0.39" spacing	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985111	3-Hole Nozzle 0.06" diameter x 0.20" spacing	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985112	Diagonal Extension Nozzle Tip = 0.14" diameter x 1.23" long	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985113	Needle Extension Nozzle Tip = 0.05" diameter x 1.32" long	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985114	Spreader Extension Nozzle Tip = (0.09" x 0.25") x 1.32" long	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985115	L-Nozzle 0.06" diameter x 0.85" offset	98033, 98034, 98035, 98036, 98040, 98544, 98545
	985122	Standard Medium Spray Nozzle 1.25" to 5" diameter pattern	98037, 98041
	985211	Narrow Spray Nozzle 0.05" to 1.25" diameter pattern	98037, 98041
	985216	Ultra-Wide Spray Nozzle 1.5" to 6.0" diameter pattern	98037, 98041
	984261	Standard Adapter for 300 ml Cartridges	98011
	984262	Standard 1-Hole Nozzle 0.098" diameter cone tip, with integral check valve (includes protective cap)	98011
	984263	Adapter/Check Valve for Specialty Nozzles	98011
	984264	Needle Jet Nozzle Tip = 0.051" diameter x 1.26" long (requires 984263 adapter)	98011
	984268	3-Hole Nozzle 0.06" diameter x 0.20" spacing (requires 984263 adapter)	98011
	984272	Injection Needle Nozzle with Integral Check Valve Tip = 0.059" diameter x 0.197" long	98011
	985397	Air Line Filter, Regulator, 5 Micron Filter Gauge 0 to 150 psi	All Pneumatic Applicators

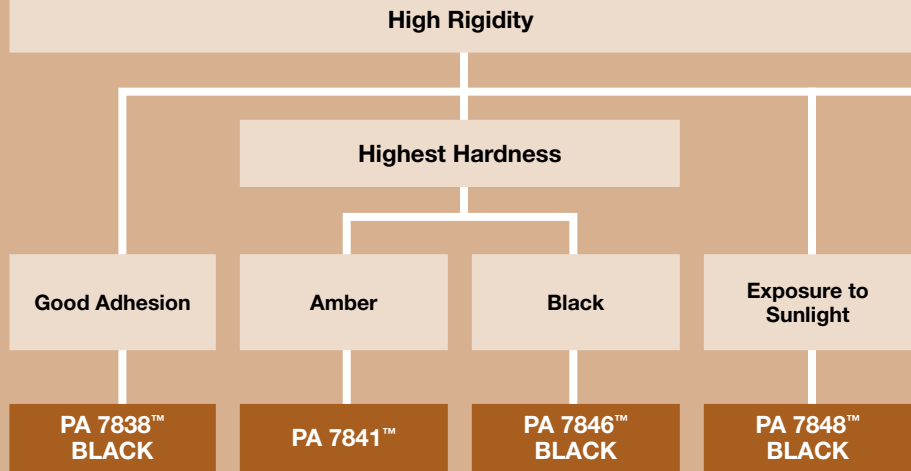
HOT MELT NOZZLES & ACCESSORIES

Low Pressure Molding

Your Application

- Low-pressure, high-speed molding with adhesives for fragile and delicate components
- Short cycle times and simple single-step process
- Encapsulation of components provides complete sealing and subsequent environmental resistance.

WHAT TYPE OF MOLDING MATERIAL DO YOU NEED?



Solution

Color	Black	Amber	Black	Black
Hardness (Shore A)	90A	92A	92A	93A
Maximum Working Temperature (°C)	130	130	130	130
Viscosity at 210°C (cP)	3500	7000	7000	7300

Product Description

TECHNOMELT® PA 7838™ BLACK

Moldable black polyamide for higher temperature applications, with service temperatures up to 130°C (266°F).

P/N **Package Size**
1762953 44 lb. bag

TECHNOMELT® PA 7841™

Moldable amber polyamide that can be used where high strength and hardness are needed, such as with computer connectors.

P/N **Package Size**
1762906 44 lb. bag

TECHNOMELT® PA 7846™ BLACK

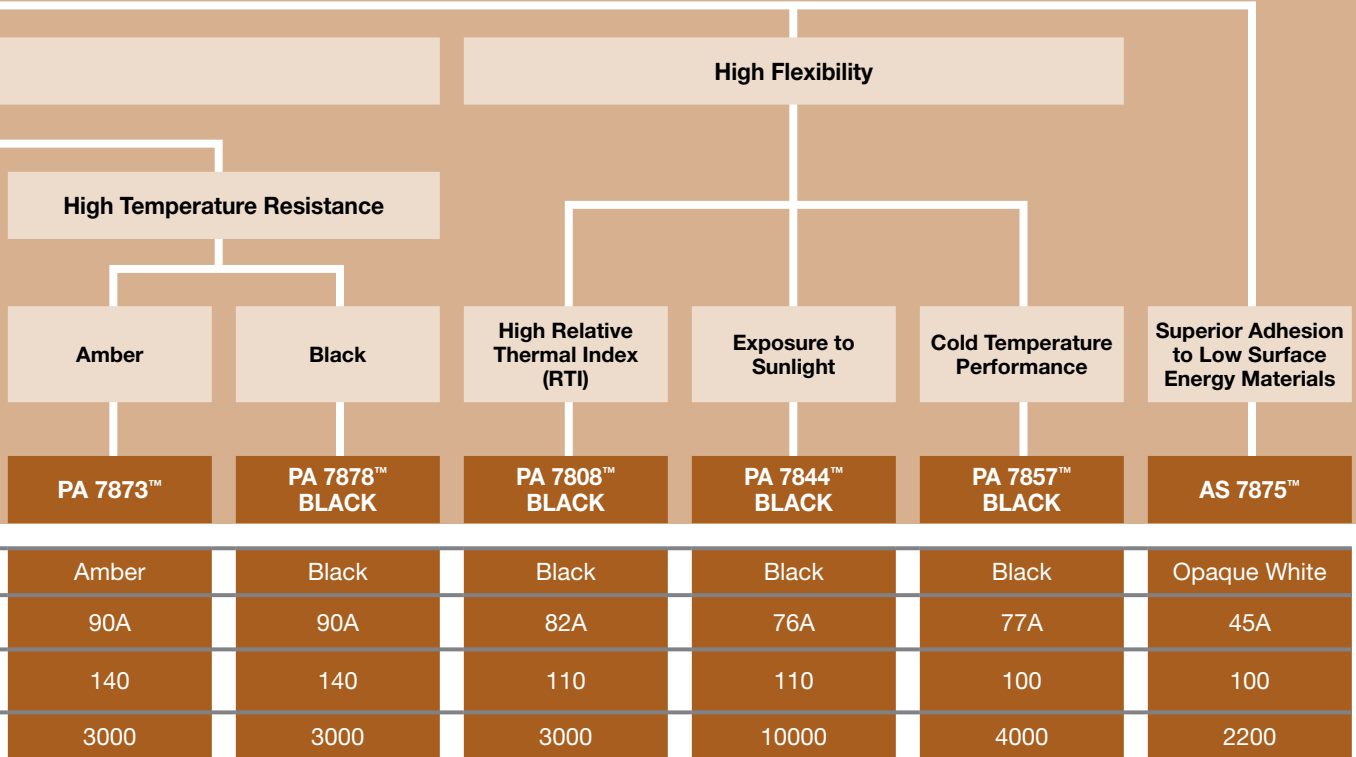
Moldable black polyamide that can be used where high strength and hardness are needed, such as with computer connectors.

P/N **Package Size**
1764113 44 lb. bag

TECHNOMELT® PA 7848™ BLACK

Moldable black polyamide with improved UV stability that is suitable for outdoor applications.

P/N **Package Size**
1764108 44 lb. bag



TECHNOMELT® PA 7873™
 Moldable amber polyamide with good adhesion for higher temperature applications up to 140°C (284°F).
P/N _____ **Package Size**
 1763724 44 lb. bag

TECHNOMELT® PA 7878™ BLACK
 Moldable black polyamide with good adhesion for higher temperature applications up to 140°C (284°F).
P/N _____ **Package Size**
 1762904 44 lb. bag

TECHNOMELT® PA 7808™ BLACK
 Moldable black polyamide with excellent adhesion to tough substrates and superior flexibility. This product is ideal for strain relief on cables and wires and for the encapsulation of heat-producing components in electrical devices. Has a UL RTI of 95°C (203°F).
P/N _____ **Package Size**
 1762910 44 lb. bag

TECHNOMELT® PA 7844™ BLACK
 Moldable black polyamide with improved UV stability that is suitable for outdoor applications. Enhanced adhesion to low surface energy plastics compared to other polyamides.
P/N _____ **Package Size**
 1925259 40 lb. bag

TECHNOMELT® PA 7857™ BLACK
 Moldable black polyamide that can be used where excellent adhesion and cold temperature flexibility are important.
P/N _____ **Package Size**
 1762909 44 lb. bag

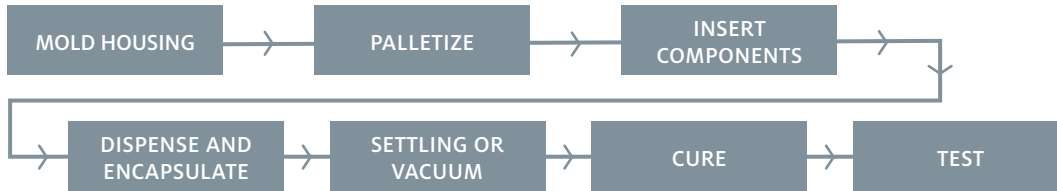
TECHNOMELT® AS 7875™
 Moldable polyolefin hot melt for applications demanding moisture and solvent resistance. It exhibits excellent adhesion to low surface energy plastics.
P/N _____ **Package Size**
 1762907 55 lb. bag

Low Pressure Molding



Process

Traditional Potting Process Flow



Low Pressure Process Flow



Key Benefits

Design

- Additive design allows for alternative solutions (simplified process vs. traditional technologies)
- Functional design removes process steps
- Improved look and image

Process

- Reduces total cost of ownership (TCOO)
- Increased throughput
- Low capital equipment costs and reduced footprint
- Low viscosity materials allow for low injection pressures

Products

- Adhesion to multiple surfaces
- Complete watertight encapsulation
- Safe, 1-component, UL 94-V0 approved
- High temperature resistance
- Compliant materials suitable for sensitive electrical and telecommunication components
- Less handling and shorter process
- No cure process required

Sustainability

- Zero waste
- All excess material and scrap are recyclable
- Natural ingredients

Through the combination of Product, Process and Design, Low Pressure Molding with TECHNOMELT® delivers customers an advanced and environmentally sustainable solution to component protection.

TECHNOMELT® Low Pressure Molding Properties Chart

TECHNOMELT® PRODUCT	TYPE	ITEM #	COLOR	HARDNESS (SHORE A)	TENSILE STRENGTH (PSI)	% ELONGATION	WORKING TEMPERATURE RANGE	AGENCY LISTING
PA 7808™	Polyamide	1762932	Amber	82A	520	600	-40°C to 110°C	UL 94V0, 95°C RTI
PA 7808™ BLACK	Polyamide	1762910	Black	82A	520	450	-40°C to 110°C	UL 94V0, 95°C RTI
PA 7833™	Polyamide	1762931	Amber	90A	750	300	-40°C to 130°C	UL 94V0
PA 7838™ BLACK	Polyamide	1762953	Black	90A	750	300	-40°C to 130°C	UL 94V0
PA 7841™	Polyamide	1762906	Amber	92A	1310	650	-10°C to 130°C	—
PA 7846™ BLACK	Polyamide	1764113	Black	92A	1310	650	-40°C to 130°C	UL 94V0
PA 7848™ BLACK	Polyamide	1764108	Black	93A	1310	550	-40°C to 130°C	UL 94V2, f2 rating for outdoor weatherability
PA 7852™	Polyamide	1762908	Amber	77A	460	400	-40°C to 100°C	UL 94V0
PA 7857™ BLACK	Polyamide	1762909	Black	77A	390	350	-40°C to 100°C	UL 94V0
PA 7873™	Polyamide	1763724	Amber	90A	800	400	-40°C to 140°C	UL 94V0
PA 7878™ BLACK	Polyamide	1762904	Black	90A	800	400	-40°C to 140°C	UL 94V0
PA 7844™ BLACK	Polyamide	1925259	Black	76A	1000	700	-20°C to 110°C	—
PA 649™ BLACK	Polyamide	1860722	Black	88A	580	250	-40°C to 100°C	—
AS 7875™	Polyolefin	1762907	Opaque White	45A	120	400	-30°C to 100°C	—

