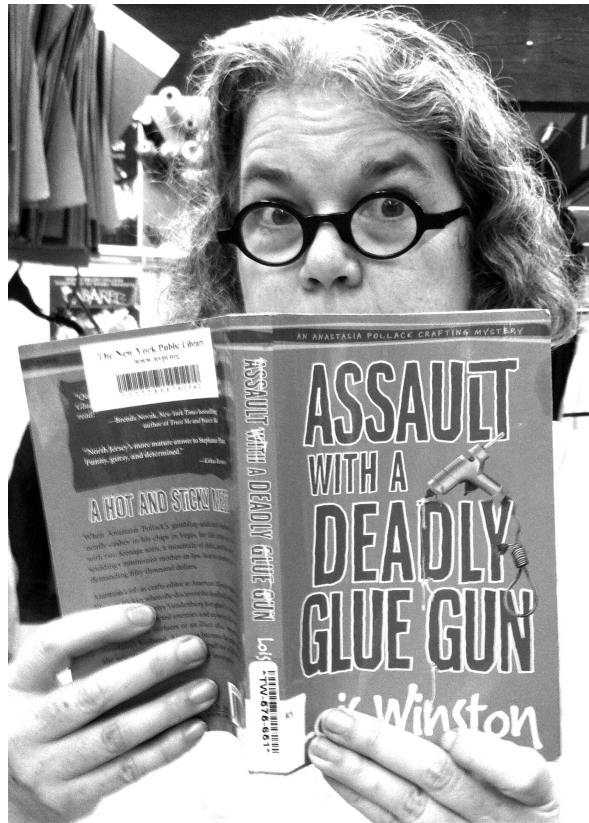


More Than You Ever Wanted to Know About Hot Glue

Costume College 2015 -- Tara Maginnis Tara@costumes.org



For Boring Technical Information go to:

http://en.wikipedia.org/wiki/Hot-melt_adhesive

Hot Glue is Good For:

- Speed
- It is a nearly universal stick anything to anything substance, sticking together awkward objects or surfaces that don't have good contact, where you need to bridge gaps.
- Temporary attachment or weak attachment for safety
- Environments with regular temperature in the 40-80 degree temperature range
- Sculpting and surface decoration
- Water-resistant *after* bonding (won't bond to wet or cold surfaces, especially ice.)
- Seamlessly attaches to other hot glue and plastics with a similar melt temperature

- Attaches well to rough surfaces but can be made to pop off of smooth surfaces like glass

Bad For:

- Strength
- Extreme temperature environments
- Neatness
- Softness and fluidity on fabric
- Material that melts with high heat
- Application to wet or very cold surfaces
- Attaches well to rough surfaces but can pop off of smooth surfaces like glass

BELIVE NO ONE when they tell you something is "super strength", or "professional grade"! All hot glue is weak. Some is stiffer than others, but this does not translate into strength for all applications. Highly flexible glue (usually "multi-temp" or "lo-temp") will work better on softer (like fabric) applications, stiffer glue ("hi-temp") works best for sculptural applications and as carpentry glue. The most flexible glues tend to be clear and shiny, the stiffest more opaque and matte. However this is not a universal rule. Glitter glue, for example is both opaque and nubby textured, but is the weakest of all.

"All-Temp" glue is "Lo-Temp" glue by another name. "Ultra-Lo-Temp" glue is just for Ultra Lo-Temp guns for maximum safety with kids and the burn-prone.

Cleaning:

- Cleaning the hot tip: Aluminum foil and/or Used Drier sheets
- Surface discolorations on the plastic: Acetone Nail Polish Remover
- Unsticking a stick that seems stuck: While hot, twirl the stick from the back, then push from the back and pull trigger
- Unsticking a backflush: Pull out the stick when the gun is warm, then let the gun cool, and then go at the back flush with needle nose pliers to pull it out of the "bridge" area between the heating unit and the trigger mechanism.
- Goo Gone
- Hot Glue Cleaner

Cleaning Glue off of surfaces:

1. Cover your surface with cooking parchment to begin with. Hot glue peels right off it.
2. Wait till it is cold and try peeling it off (to speed this up, stick in the freezer).
3. Try softening edges with solvents, in order of severity: Alcohol first, then Goo Gone or Acetone if that has not helped to let you peel it.
4. If all else fails, on fabric you can iron a lot of it out, with a bit of Goo Gone for help.

Nozzles:

- Glue guns nearly always work best with an extra long nozzle attachment
- After the first use, only take nozzles off while the gun is heated up, but unplugged. Removing while cold is nearly impossible and can damage the threads on the nozzle and gun. Generally, just add your long nozzle and keep it on.

Safety & Burns:

- Silicone or latex palm "mechanics" or "work" gloves for high heat
- Cooler temp guns for kids and burn prone folks
- Always use your gun on the lowest temperature needed, both for work quality and safety - Get a dimmer switch for improved control
- Backs of Fingernails help
- Super-Dry hands help
- Gun stands help
- Bigger guns and long nozzles *really* help
- Keep egg whites in fridge for burns
- Watch out for Feathers and fluff!
- Wear long sleeves for working inside Furies and similar stuff
- If you tend to plug in and forget your gun, you can buy models with a 15 minute non use auto-shutoff I highly recommend the Stanley Glue Pro for this and other safety features
- <http://www.prettyhandygirl.com/hot-glue-gun-safety-and-making-moss-balls/>

Alternate Uses for Glue sticks:

- Light Diffusers
- Sculptural components

Alternate uses for glue guns:

- Burning neat holes into plastics
- Melting crayons
- Melting candy sticks
- Impromptu soldering iron in a pinch (clean it first)

Best Place to buy Glue Guns and Glue:

<http://ebay.com>

- When buying regular translucent multi-temp glue in bulk always buy by the 5+ pound, and comparison shop. Check 6 lb rate and other numbers, too, for some reason lately you can often buy 6lbs for \$1-2 *less* than the cheapest rate for 5lbs. However, check the stick width while doing so or you may be stuck with industrial sticks you can't fit in any home use gun.
- Search for exotic glues for your gun by function:
 - Clear colored and Neon colored mini sticks are sold to people who make fishing flies
 - Metallic and fancy colored sticks are sold as Sealing "wax" sticks
 - Glitter sticks are often listed by that name rather than hot glue sticks
 - Hot Melt "blood" sticks for Halloween
 - "Webcaster" and "Cobweb" sticks
 - Vintage hot melt caulking & glue
 - "Keratin" hair extension mini sticks for colors like normal hair
 - Hot glue of assorted types is also sold to folks who fix car dents
- Don't pay extra for UV sensitive sticks till you check your regular glue sticks first. Most milky-clear glue sticks are UV blue sensitive. Check with a black light, or in a pinch, put it in bright daylight and see if it suddenly looks weirdly a bit bluish. If it does you already have UV sensitive sticks...

Glue Gun Accessories

1. Parchment Paper (Hot glue peels right off)
2. Stand for your Gun
3. Silicone or Latex Palm Gloves (for dangerous jobs)
4. Stick (Popsicle, toothpick, pencil... see above)
5. Long Nosed Tips

6. Heat Gun to melt away cobwebs
7. Silicone Mat or Glass Cutting Board or Cookie Sheet
8. Silicone Molds for Casting

Most Common Glue Stick Sizes

Information from <http://www.glu-stix.com>

Diameter by Length	Application
5/16" or 1/4" x 4" 7mm x 102mm	Mini Stick 1/4" Glue Guns Household or Hobby Use
7/16" or 1/2" x 4" 12mm x 102mm	Standard 1/2" Glue Guns Household or Hobby Use
7/16" or 1/2" x 10" 12mm x 254mm	Standard 1/2" Glue Guns Commercial or High-Volume Use
5/8" x 10" 16mm x 254mm	Commercial and Industrial 5/8" Glue Guns
Bulk Pellets, Pillows, or Chips	Glue Pots and Commercial High Volume Applicators

Number of glue sticks per pound

Information from <http://www.glu-stix.com>

Glue Stick Size	Approximate Number of Sticks per Pound
1/4" Dia. Mini x 4" Long	110
7/16" Dia. x 4" Long	45
7/16" Dia. x 10" Long	18
5/8" Dia. x 2" Long	50
5/8" Dia. x 10" Long	11
1" Dia. x 3" Long	12
1-3/4" Dia. x 1-3/4" Long Plugs	8

Glue Gun Temperature Types:

Ultra Cool: AdTech Cool Tool (Battery), SureBonder Cool Shot (Cord), uses Ultra-Cool mini glue sticks. 77C /170F	Good for foam, plastics, working with kids, battery ones are portable. Won't burn fingers. Sticks are expensive and hard to find but interchangeable.
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<u>Low Melt</u> : Uses Low Melt or All-Temp glue. 120C/240F	Less burn prone, cheap, available, multiuse, soft, clear, flexible.
<u>Dual Melt</u> : High Temp Sticks, All-Temp Sticks, Webcaster sticks. Variable.	<u>High Temp</u> : Harder Results <u>All-Temp</u> : Should be used in low temp mode for safety.
<u>High Temp</u> : High Temp Sticks, All-Temp Sticks, Webcaster sticks. 190C/374F	<u>High Temp</u> : Harder Results <u>All-Temp</u> : Flows fast and runny, but has high burn potential.
<u>Webcaster</u> : Webcaster sticks, High Temp Sticks, All-Temp Sticks.	With compressor can shoot out "cobwebs". Works like regular high temp glue gun otherwise.
Industrial Hi-Temp: Specialty sticks as per brand	

Fine Art Sculptors in Hot Glue:

Sarah Alford, Canada: <http://sarahalford.com>

Galit Allouche, Israel/France: <http://www.galitallouche.com>

Claire Knox Bentham, England: <http://www.clareknoxbentham.co.uk>

Michelle Kong, USA: <http://www.clearspacestudio.com>

Dong Hee Lee, S. Korea/USA: <http://www.artistdongheelee.com>

John Medina, USA: <http://www.m3dina.com>

Yasuaki Onishi, Japan: <http://www.onys.net>

Gerri Sayler, USA: <http://gerrisayler.com>

Esma Pacal Turam, Turkey: <http://www.esmapacal.com/homepage.html>

Sim Seung-Wook, S. Korea/USA: <http://hzone.com/?page=350>

Yasuaki Onishi explains his process making "Vertical Emptyness"
 <iframe src="https://player.vimeo.com/video/73378946" width="500" height="281" frameborder="0" webkitallowfullscreen mozallowfullscreen allowfullscreen></iframe>

Toy Designer- Alexana Blott (aka "Sovriin"), Wales:

<http://sovriin.deviantart.com> One of many people on Deviant Art who have figured out how good hot glue is for making small figurines.

Dress Accessory Designer- Nixxi Rose, England:

<http://www.nixxirose.com> Makes amazing decorated shoes, jewelry and bags with hot glue.

There are lots of great Video Tutorials on Hot Glue by Lori Lane at YouTube Channel "Maker High":

<https://www.youtube.com/channel/UCFuJrFV34NOYnUFCJVwGYDA>

Other good How-To Bits:

<http://craftypicks.hubpages.com/hub/Masquerade-Mask-Made-With-Glue-Sticks>

<https://www.youtube.com/watch?v=-fz91s6Ea4c> Hot glue cuff bracelet tutorial <http://www.instructables.com/howto/hot+glue+gun/>

How to make your own colored hot glue sticks:

<http://www.observationsblog.com/sciencetechnologyexperiments/make-your-own-color-hot-glue-sticks> *If you are insane...*

Candy and Glue Gun How-to Links:

<http://www.evilmadscientist.com/2014/chocolate-glue-gun>

<http://www.instructables.com/id/Gluing-a-gingersnap-cottage-like-a-nerd/?ALLSTEPS>

12 Tips for Making Amazing Hot Glue Objects:

Tip #1: Hot Glue is bulky, so you can use it to make quick, strong, 3D surface decoration on all sorts of objects

Tip #2: Hot Glue conveniently peels off of cooking parchment, and so, can be used solo, as a material for making flat openwork jewelry

Tip #3: Putting a pattern under the parchment helps you make complex forms

Tip #4: Forming parchment into shapes allows you to make free form dimensional shapes of hot glue as well

Tip #5: Hot Glue willingly envelops other objects, including sticks and wire to form armatures

Tip #6: Hot Glue will always stick to itself, even if one part of the object was glued days or even years before a new part was glued on. This makes repairs, additions, and large fused projects work.

Tip #7: You can therefore break down a project into sections, just like a sewing pattern to make complex 3-D costume pieces

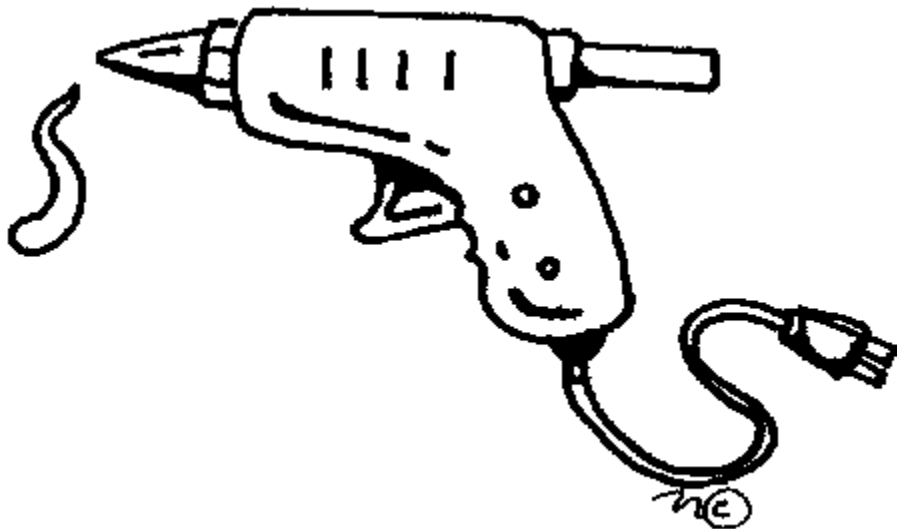
Tip #8: Different types of Hot Glue can be freely blended together to form variegated colors and textures while in liquid form, either mixed in the gun, or with a spatula on exit, or with a heat gun or iron.

Tip #9: You can use a other sources of heat to re-heat Hot Glue to alter it in other ways. A Heat Gun can shine it, remove cobwebs, fuse together pieces, and bend it if your shape needs it (but be careful), and you can iron on pre-made glue shapes to fabric, by ironing from the back of the fabric.

Tip #10: You can pour Hot Glue into Silicone Molds such as those used for cooking fondant and Fimo to make small embellishments that you can fuse together.

Tip 11: Hot Glue won't stick to Ice. So if you want to make a sphere, start with a water balloon

Tip 12: Transparent Hot Glue makes great light diffusers, and can blend in other clear plastics seamlessly



Special Thanks to Janice Gartin for Moral Support!