

# Ham Heat

# Shrinking Hacks

[w6nbc.com/slides](http://w6nbc.com/slides)

# Heat Shrink Tubing



**Polyolefin**  
*Polyethylene*  
*Polypropylene*



# Shrinky Dinks®

MADE IN USA  
FABRIQUÉ AUX É.-U.  
HECHO EN EE. UU.



CRYSTAL CLEAR CREATIVE PACK  
PACK CRÉATIF TRANSPARENT  
ETE CREATIVO TRANSPARENTE COMO EL CRISTAL





LOCme Heat Shrink Tape Black - 1" Width 16.5ft with Adhesive | Heat Shrink wrap for Wire Loom, Pipes, Splice

100+ bought in past month

\$11<sup>99</sup> List: \$13.99

✓prime

FREE delivery Thu, Feb 8

Add to cart

**Neater than  
vinyl electrical  
tape**

A person wearing a red long-sleeved shirt is using a blue heat gun to shrink a clear plastic film over a stack of cardboard boxes. The heat gun has a yellow label that reads "DART INDUSTRIES". The film is being applied to the sides of the stack, which consists of several layers of brown cardboard boxes. The background is dark and out of focus.

# Heat Shrink Film Wrapping



***NOT WELL KNOWN***

**Top of a Common  
Drinking Water  
Bottle Heat Shrunk  
Onto a 2x2**

# states of matter

**Freeze**

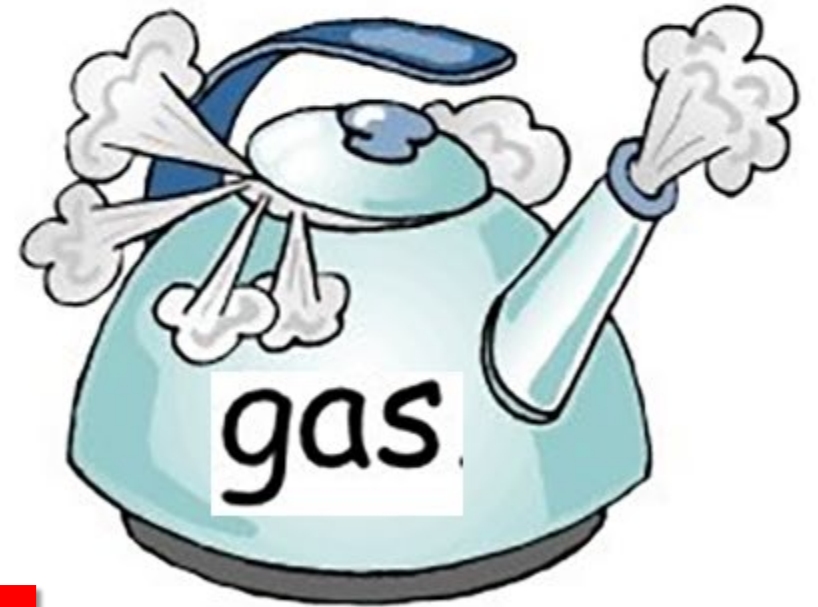


**T<sub>F</sub>**

**Boil**



**T<sub>v</sub>**

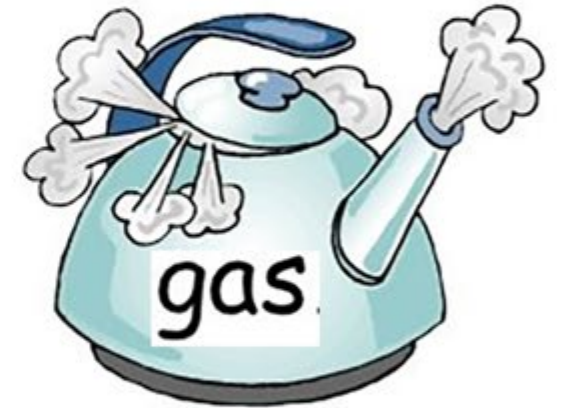




# states of matter



**GLASS**  
**Amorphous**  
**Rubbery**



**> T<sub>G</sub>**

**Glass Temperature**

# Sagging Old Glass



# Heat Shrinking

Making use of it

1. HEAT  $> T_G$   $\rightarrow$  Glass state

2. STRETCH 2-3x  $\rightarrow$  Molecules align

3. COOL  $< T_G$   $\rightarrow$  Harden to a solid

4. REHEAT  $\rightarrow$  Shrink – Molecules relax

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Polyethylene, Polypropylene (Heat shrink tubing)

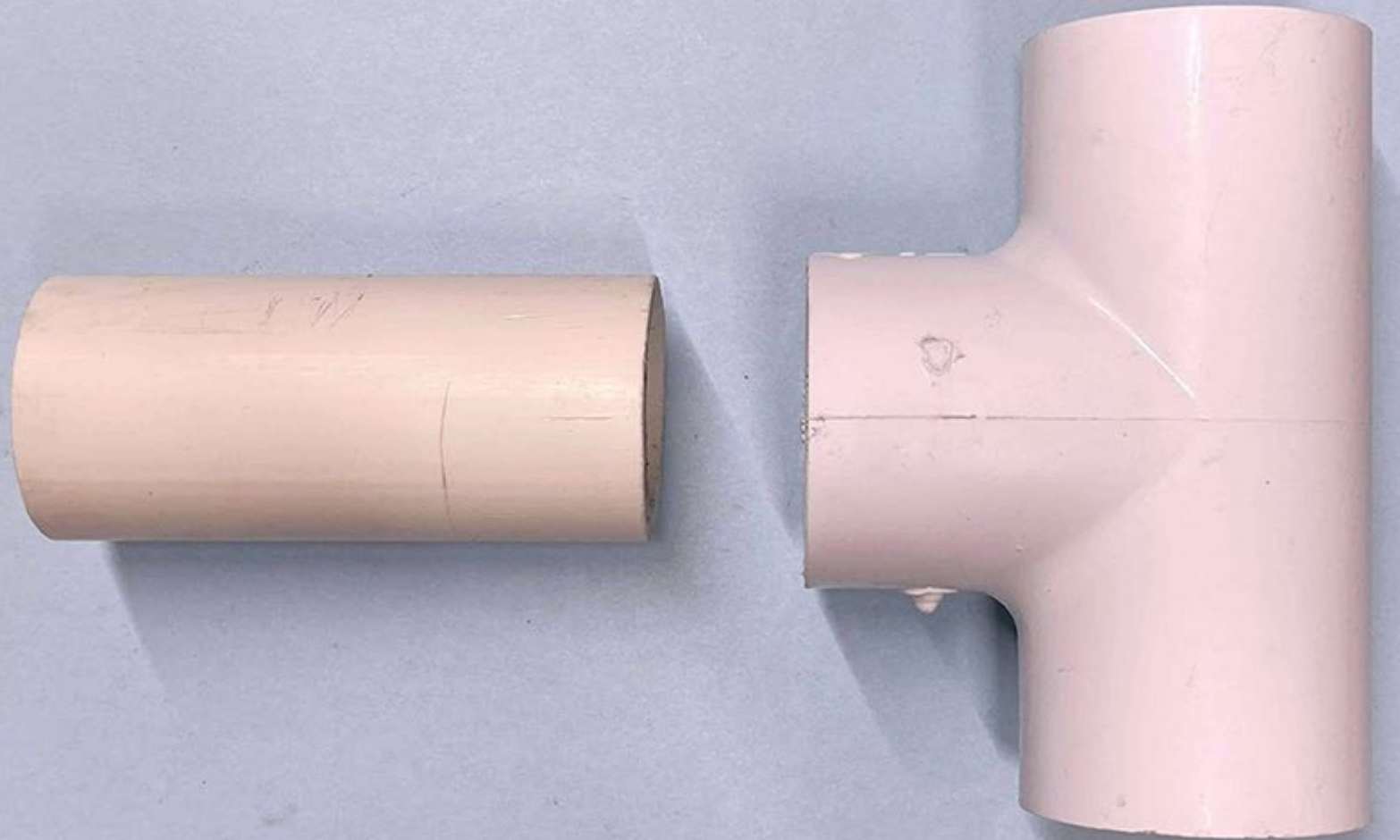
PVC, Styrene, PET



**PET bottles shrink back roughly 2:1**

	Material	T <sub>G</sub> (°F)
PP ★	Polypropylene	-4
HDPE ★	Polyethylene HD	-148
PA	Polyamide --> Nylon	117–140
PLA	Polylactic acid	140–149
PET ★	Polyethylene terephthalate --> clear bottles	158
PVC ★	Poly vinyl chloride --> water pipe <b>Boiling Water</b>	176
PVA	Poly(vinyl alcohol	185
PS ★	Polystyrene	203
PMMA	Polymethyl methacrylate --> Plexiglas	<u>221</u>
ABS	Acrylonitrile butadiene styrene	221
PC	Polycarbonate --> Lexan	293

**Shrinking  
PVC pipe  
ends in  
boiling  
water**



# **Heat Shrinking PET Plastic Bottles and Strips**





**Injection molded  
deflated PET balloon**



**Hot PET in blow mold**



**Drinking Water Bottle Heat Shrunk**





**1 Liter  
PET Soda  
Bottles  
Clear and  
in Colors**

# Soda Bottle Spiral Cutter

*Hole  
in cap*

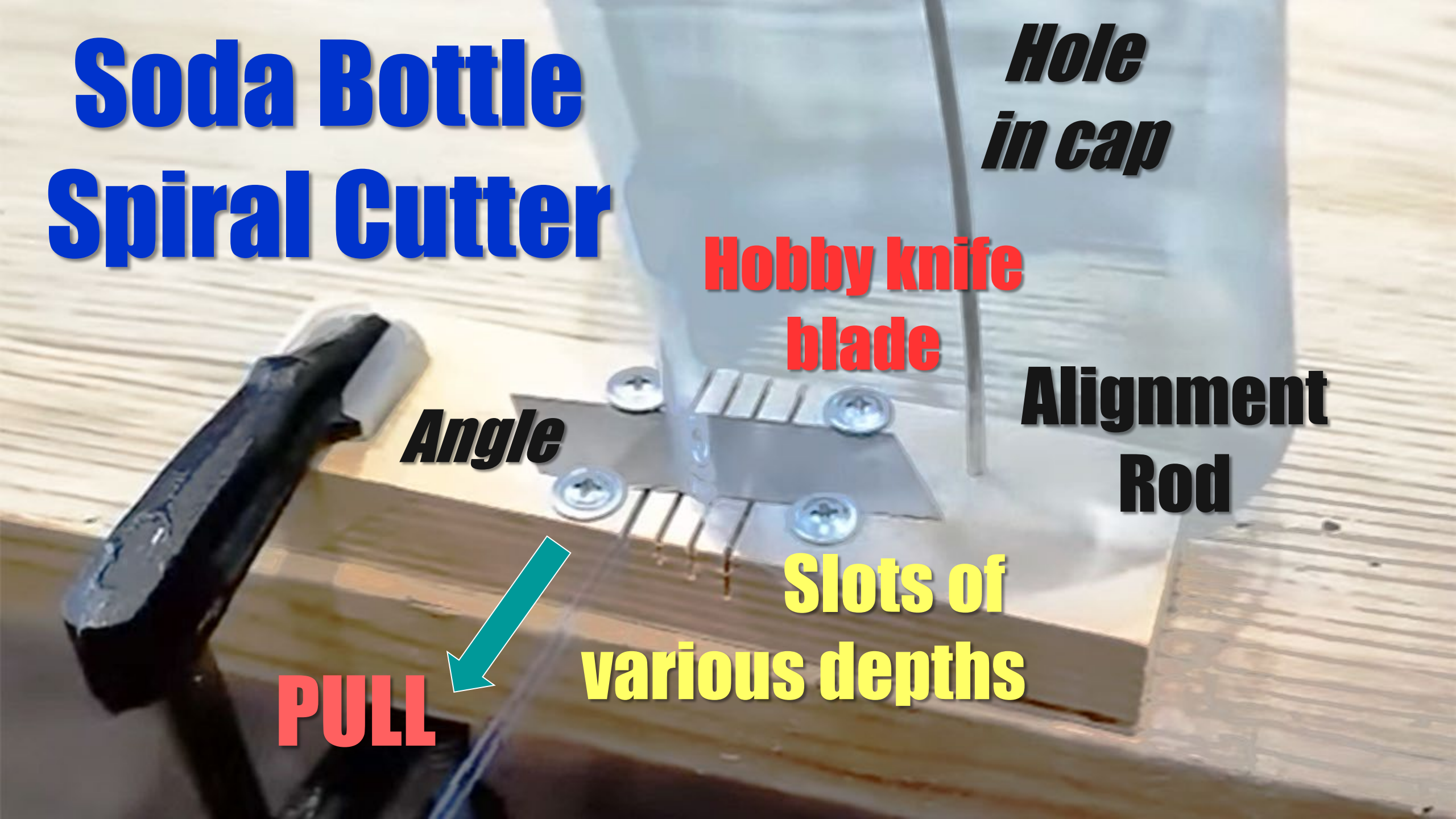
**Hobby knife  
blade**

**Alignment  
Rod**

*Angle*

**Slots of  
various depths**

**PULL**

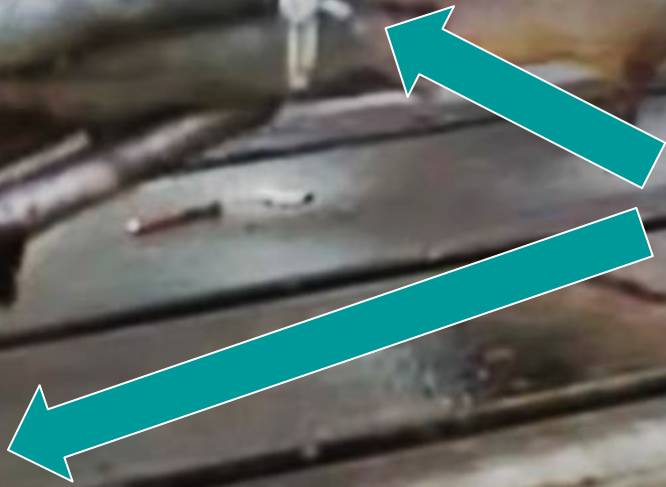


Genround DIY Plastic  
Bottle Cutter \$15.99  
Amazon





**Knotted and shrunk  
spiral-cut heat  
shrink tape strips**









## FastRack Carboy5 Vintage Shop Plastic PET Carboy, 5 gallon, Clear

[Visit the FastRack Store](#)

4.3  41 ratings

-7% \$29<sup>89</sup>

List Price: \$31.99 ⓘ

[FREE Returns](#) ▾

Get \$50 off instantly: Pay \$0.00 upon approval for Amazon Visa. No annual fee.

- Pet food grade plastic
- 5 US gallons
- Clear Plastic
- Stain resistant
- Flat side wall-no ribs

 [Report an issue with this product or seller](#)



The background of the advertisement features a collection of various colored medical tubes (PET heat shrink tubing) arranged in a fan-like pattern, radiating from the bottom left towards the top right. The colors include shades of orange, blue, white, and black. The tubes are shown in perspective, with some appearing to recede into the distance. The overall aesthetic is clean and professional, typical of a technical or medical product advertisement.

# MEDICAL APPLICATIONS

PET HEAT SHRINK

# TUBING

If you think of an application,  
send me a photo

[w6nbcmail@gmail.com](mailto:w6nbcmail@gmail.com)

w6nbcmail  
@gmail.com

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slides



DØGGY



*"That's all Folks!"*

