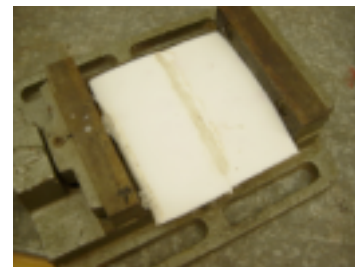


<p align="center">Thermal Welding</p> <p align="center">Individual Module: 20</p>	<p align="center">TEL 204: Polymer Molding & Forming Department of Technology</p>	<p align="center">Student Name: (PRINT)</p>
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Overview:

Most people know that two pieces of metal can be welded together. Few people realize that thermoplastic can also be welded. You will use the hot gas welder to join two pieces of plastic. First review the video demonstration of thermal welding. Then prepare two pieces of plastic (polyethylene works well). Bevel both edges to be joined. Select the appropriate welding rod that matches the material you are welding. If none is available, you may need to create your own welding rod from scrap plastic removed from the object you are welding. ALWAYS TURN ON THE AIR TO THE HOT GAS WELDER BEFORE PLUGGING IN THE HEATING ELEMENT. Adjust the air pressure and weld the parts together. ALWAYS UNPLUG THE HEATING ELEMENT AND ALLOW THE WELDER TO COOL BEFORE TURNING OFF THE AIR ! Once the parts are welded, file, scrape, and/or sand the parts to clean up the joint. Test the weld for strength. Small scratches in most thermoplastics can be flame polished.



Lessons Learned:

List the most important lessons learned from this polymer module.

1. _____

2. _____

3. _____

Module Grade:

Tape the finished product to the back of this worksheet using masking tape. (or label your welded joint on class artifact)	Joint Appearance (40)	Joint Strength (40)	Lessons Learned (20)
Instructor Signature:		Date:	Grade: