

Tension Test Quick Reference Card

Pre-Testing Instructions

<u>Step</u>	<u>Task</u>	<u>Instruction</u>
1	Click "Enter Student Information" on main menu	→ Enter Information → Press tab key to navigate → Click small "x" to exit to menu
2	Click "Options" on main menu	→ Select relevant options → Click small "x" to exit to menu
3	Click "Select Test" on main menu	→ Click "Tension Test"
4	Select test methodology	→ Click "Continuous" or "Step-by-step"
5	Select your material	→ Hover mouse over material → Left click to select
6	Select your specimen's diameter	→ Click down arrow in material's box → Click .25 or .50 diameter

Test Instructions

<u>Step</u>	<u>Current Task</u>	<u>Instruction</u>
1	Obtain specimen for measurement	→ Click on the current specimen box
2	Select punch tool	→ Click the punch tool icon in the tool box
3	Place specimen in punch tool	→ Drag punch tool to specimen center → Click mouse to affix tool to specimen
4	Left punch specimen	→ Click punch tool's left punching bar
5	Right punch specimen	→ Click punch tool's right punching bar
6	Return punch tool to tool box	→ Click the punch tool icon in the tool box
7	Select caliper tool	→ Click the caliper icon in the tool box
8	Position caliper tool	→ Hover caliper over specimen's center and click mouse
9	Measure gauge length	→ Click and drag caliper jaw open to measure gauge length → Caliper tool will flash at correct measurement → Click specimen's center
10	Position caliper tool	→ Hover caliper over specimen's center and click mouse
11	Measure initial diameter	→ Click and drag caliper jaw open to measure initial diameter → Caliper tool will flash at correct measurement → Click specimen's center
12	Return caliper to tool box	→ Click the caliper icon in the tool box
13	Approach machine with specimen	→ Press A,S,W,D,Q, Z to <navigate> specimen Navigate & <hold> SHIFT to <slow> specimen
14	Open bottom clamp	→ Press right directional key
15	Position specimen in bottom clamp	→ Press A,S,W,D,Q, Z to <navigate> specimen Navigate & <hold> SHIFT to <slow> specimen
16	Secure specimen in bottom clamp	→ Press left directional key
17	Move camera to top clamp	→ Press Q
18	Open top clamp	→ Press up directional key
19	Pick up machine controller	→ Press C
20	Lower top clamp	→ Click down arrow on remote with mouse

Test Instructions Continued on Back

Tension Test Quick Reference Card

Test Instructions Continued From Front

21	Secure specimen in top clamp	→ Press down directional key.
22	Attach extensometer	→ Click the extensometer icon in the tool box → Move camera forward and click on specimen
23	Remove extensometer pin	→ Click the extensometer on the black dot to remove pin
24	Zero tension machine	→ Click the zero icon in the tool box
25	Begin tension test	→ Click the play button in the tool box
26	Go to data view to record your test data	→ Click the data icon
27	Wait for test completion	→ Wait for specimen to turn red after breaking
28	Return to the lab to measure final specimen	→ Click the lab icon
29	Remove specimen from machine	→ Click middle of specimen in machine
30	Select caliper tool	→ Click the caliper icon in the tool box
31	Measure specimen's final length	→ Position caliper, click, and measure specimen's final length → Click specimen's center
32	Measure specimen's neck diameter	→ Position caliper, click, and measure specimen's neck diameter → Click specimen's center
33	Return caliper to tool box	→ Click the caliper icon in the tool box

Post-Testing Instructions

Step	Task	Instruction
1	Enter and save your Pre/Post – Test data in data view	→ Click the “ Save Data ” button found in the Pre/Post-Test data box.
2	Enter and save your post-test observations in data view	→ Enter all observations → Click “ Save and continue to reports ”
3	Enter and save your Pre/Post-Test data in reports view	→ Click the “ Save Data ” button found in the Pre/Post-Test data box.
4	Enter and save your information and alerts for the test instructor	→ Enter all observations in the Information and Alerts Box → Click “ Save and print reports ”
5	Copy data to text file for final calculations	→ Copy and paste information from Raw Data box to .txt file
6	Return to reports view	→ Click on the “ Go back to report view ” button → Record final calculations into the material properties box

Keyboard Commands

Key	Use	Mechanics
A	Moves camera view left	→ Camera speed is controlled with SHIFT
S	Moves camera view backwards	→ Camera speed is controlled with SHIFT
D	Moves camera view right	→ Camera speed is controlled with SHIFT
W	Moves camera view forwards	→ Camera speed is controlled with SHIFT
Q	Moves camera view upwards	→ Camera speed is controlled with SHIFT
Z	Moves camera view downwards	→ Camera speed is controlled with SHIFT
C	Displays machine's controller	→ Once displayed, the controller is manipulated by the mouse
↑	Opens machine's top clamp	→ One key stroke partially opens the clamp
↓	Closes machine's top clamp	→ One key stroke partially closes the clamp
→	Opens machine's bottom clamp	→ One key stroke partially opens the clamp
←	Closes machine's bottom clamp	→ One key stroke partially closes the clamp
SHIFT	Slows down camera speed	→ Press and hold while moving camera view to slow