

Compression Test Set Up

- Run proper Bluehill compression test method (cylindrical_metallic or cylindrical_polymer). Follow proper file naming convention.
- Hardness (average 3 readings)
- Diameter *and* Length (average 3 measurements for each)

Metals	PMMA (polymer)
Install extensometer (<i>see below</i>)	No Extensometer (fully enclose back of loading fixture with shield)
Remove extensometer when computer prompts.	
Crosshead speed: 2.5 mm/min	Crosshead speed: 5 mm/min
Specimen info: <i>as appropriate</i>	Specimen info: <i>no extensometer</i>
Hardness: <i>as measured</i>	Hardness: <i>NA</i>
Hardness corr. dia: <i>as measured</i>	
Initial plot is <i>Load vs. Strain</i>	Plot is <i>Load vs. Computed Strain</i>

- Open front shield. Raise piston. Check clearance for specimen.
 - Jog up if necessary. Close shield.
 - Center the fixture on the Instron platen.
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- *<metals only>* At BACK of the Instron, hold the Extensometer, wire DOWN.
 - Set the Extensometer Calibration Buttons (*SEE the cup-cone engage*). (*Keep the buttons engaged during the entire installation procedure*)
< Do NOT place the specimen in the fixture yet. >
 - Center the specimen in the extensometer clips.
 - Center the specimen on the fixture platen.
 - Check vertical alignment and then lower the piston.
 - *Carefully release* the extensometer buttons.
 - Close shields – Do not contact the extensometer.
 - Extensometer – Balance Strain 1 (upper left of computer screen).
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- Jog down – Small gap between the load cell and piston.
 - GL Reset.
 - Start the test.
 - For metals, computer will prompt (at 12% strain) to remove extensometer & close shield (strain is automatically computed from crosshead position beyond 12%)
 - Stop test manually, as appropriate (upper right on computer screen or red button on control console). Test will auto-stop if 100kN load is exceeded.
 - **UNLOAD** (Jog Up) *BEFORE* removing shields. Watch Load indicator.
 - Remove (extensometer and) specimen.
 - Measure final dimensions and enter in Bluehill.