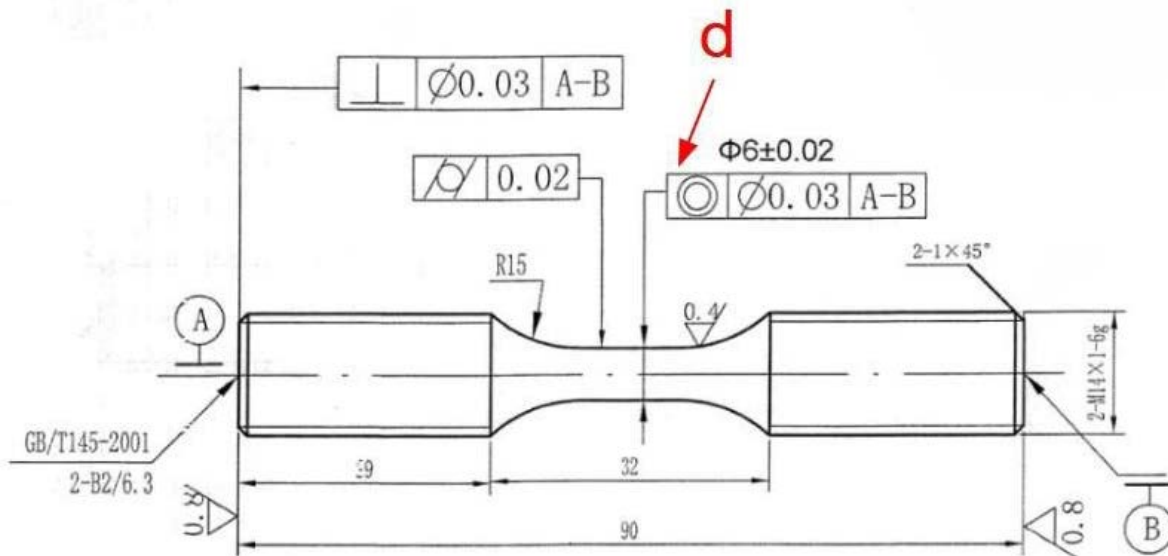


TITLE: Trial polishing

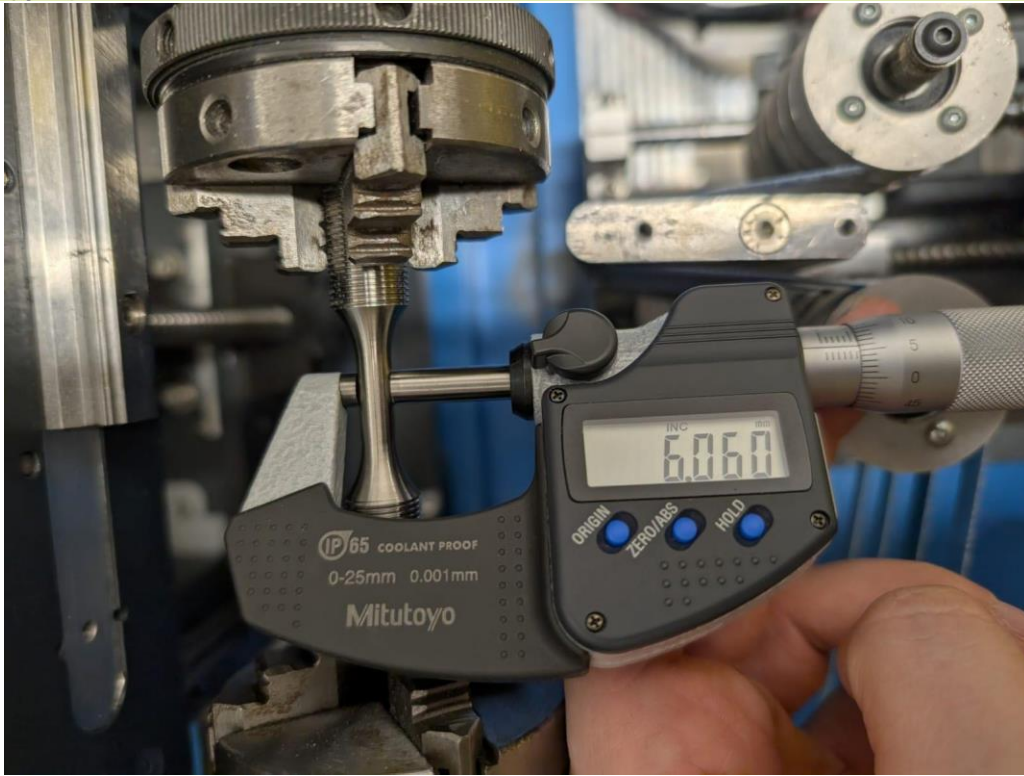
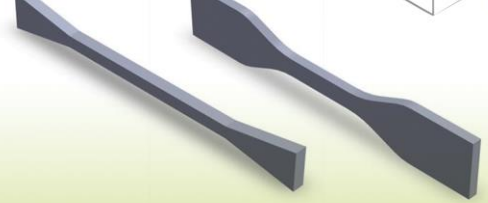
1. Cylindrical specimen characteristics



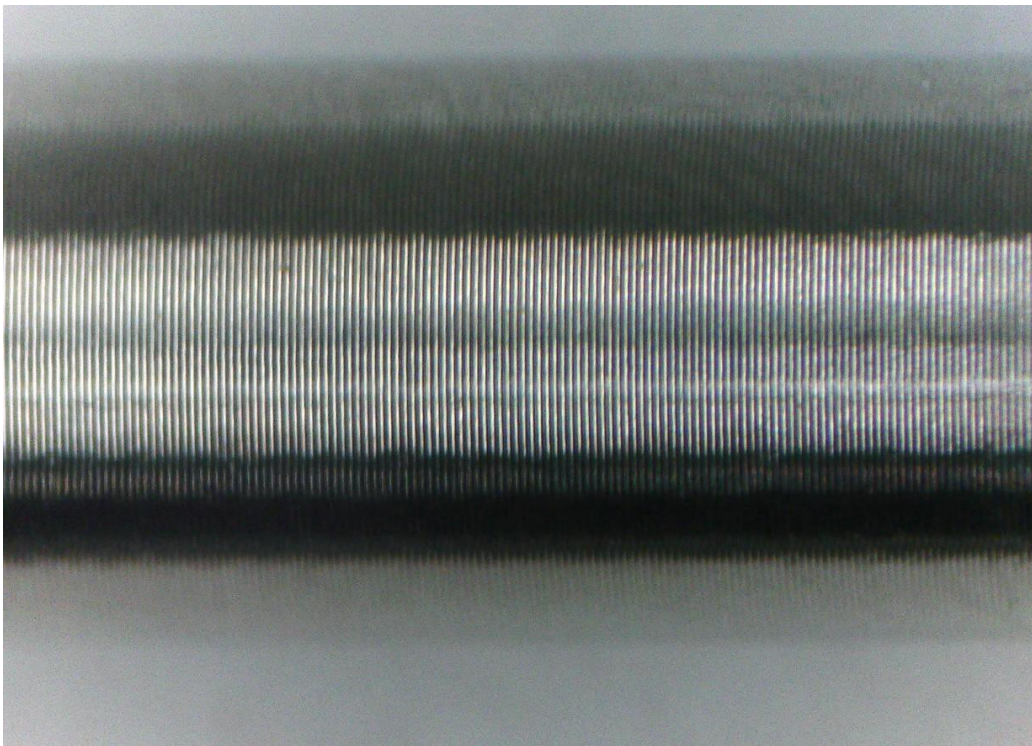
Material:

Specimen 1: Ti-6Al-4V

Specimen 2: Al 7075



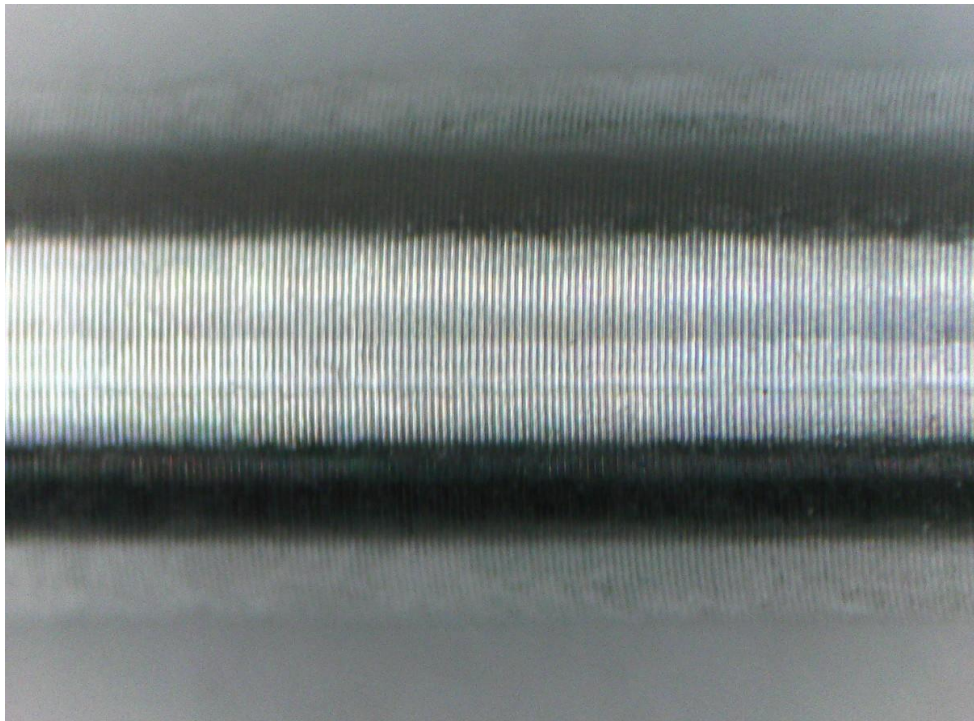
Pic. 1. Specimen 1 "d" - before polishing



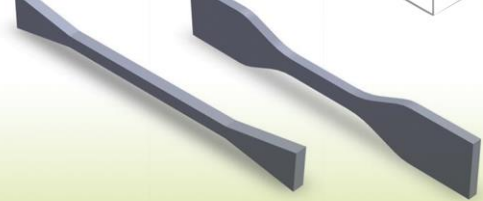
Pic. 2. Specimen 1 surface - before polishing



Pic. 3. Specimen 2 "d" - before polishing



Pic. 4. Specimen 2 surface - before polishing



2. Specimen 1 polishing process

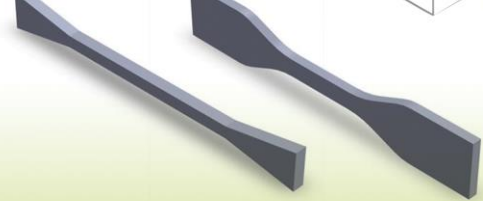
a. STEP 1

Tab.1. Specimen 1, Step 1 polishing

STEP 1 Sandpaper grit	P180
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	14
D dimension	6.03 mm
Material removal	0.015 mm/surface



Pic.5. SPEC. 1, d - after step 1



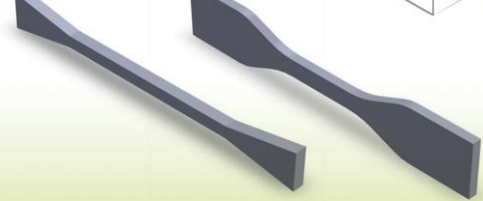
b. STEP 2

Tab.2. Specimen 1, Step 2 polishing

STEP 1 Sandpaper grit	P600
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	8
D dimension	6.015 mm
Material removal	0.0075 mm



Pic.6. SPEC. 1, d - after step 2



a. STEP 3

Tab.3. Specimen 1, Step 3 polishing

STEP 1 Sandpaper grit	P1200
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	4
D dimension	6.010 mm
Material removal	0.0025 mm



Pic.7. SPEC. 1, d - after step 3



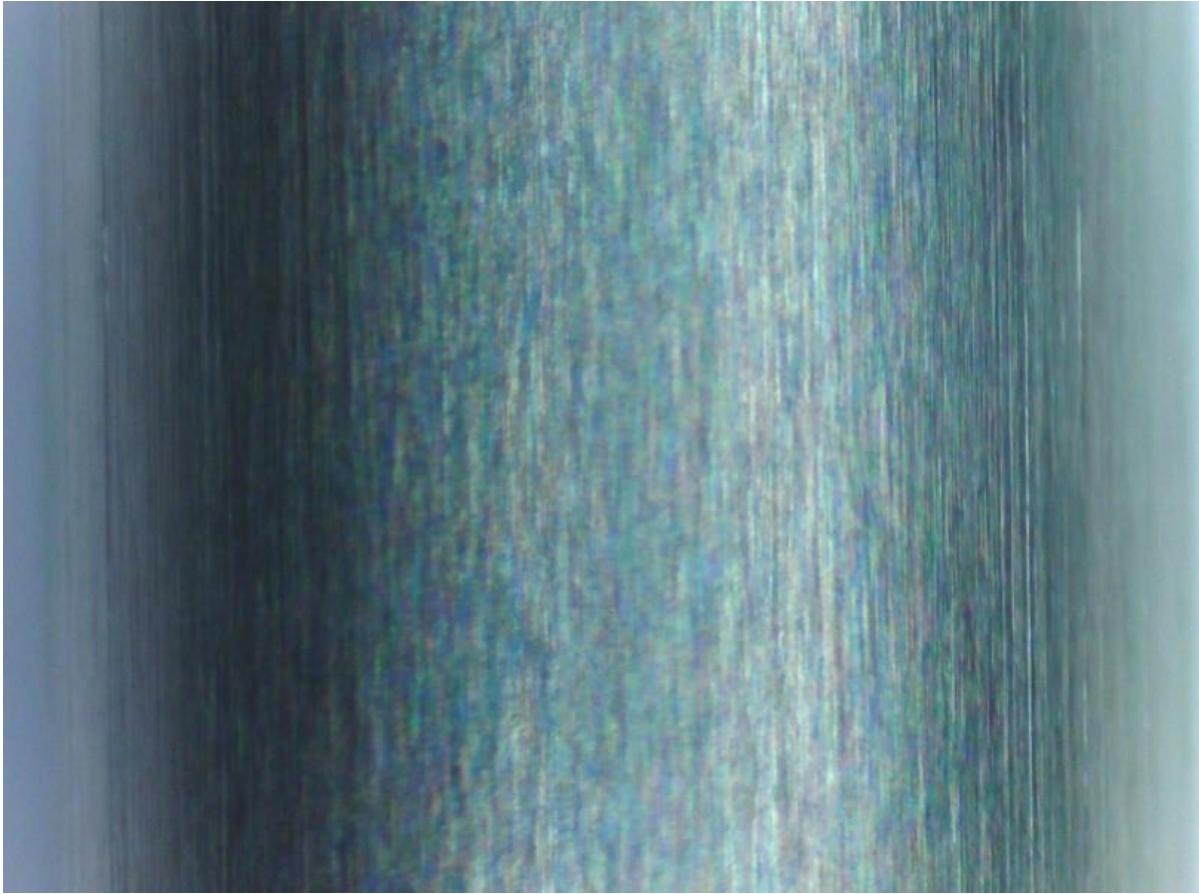
a. STEP 4

Tab.4. Specimen 1, Step 4 polishing

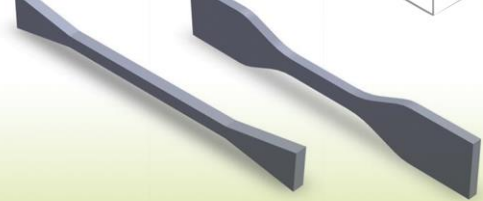
STEP 1 Sandpaper grit	P2000
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	8



Pic.8. Specimen 1 after step 4



Pic.9. Specimen 1 surface after step 4 - microscope photo



3. Specimen 2 polishing process

According to our measurements, Specimen 2 had minor inaccuracies in its diameter. It was slightly oval in shape, with a difference of 0.012 mm between measurements taken at 90-degree rotations. However, this may not be entirely accurate, as the measurements were taken manually using a micrometer.

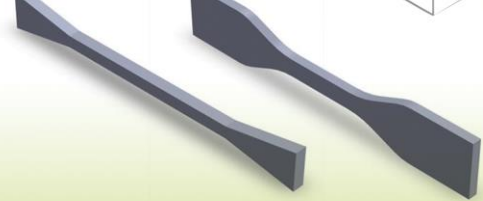
c. STEP 1

Tab.5. Spec 2, Step 1 polishing

STEP 1 Sandpaper grit	P320
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	4
D dimension	approx. 6.026 mm
Material removal	approx. 0.011 mm/surface



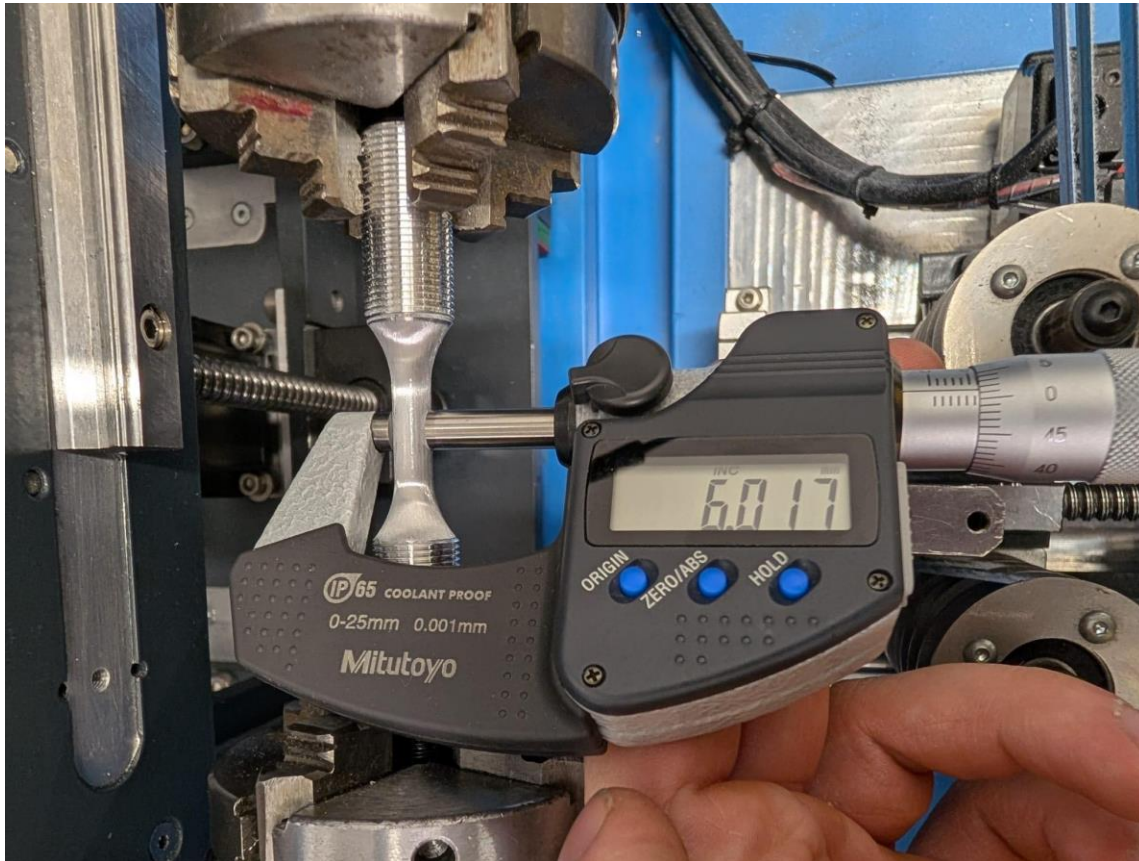
Pic.10. SPEC. 2, d - after step 1



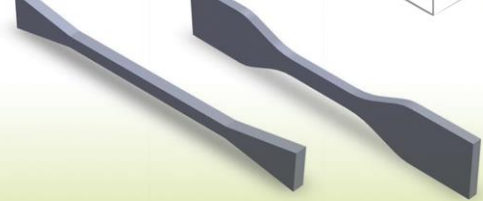
a. STEP 2

Tab.6. Spec 2, Step 2 polishing

STEP 2 Sandpaper grit	P800
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	4
D dimension	approx. 6.017 mm
Material removal	approx. 0.0045 mm/surface



Pic.11. SPEC. 2, d - after step 2



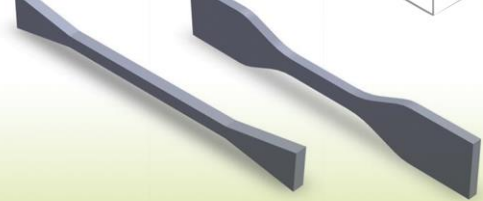
a. STEP 3

Tab.7. Spec 2, Step 3 polishing

STEP 2 Sandpaper grit	P1200
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	4
D dimension	approx. 6.012 mm
Material removal	approx. 0.0025 mm/surface



Pic.12. SPEC. 2, d - after step 3



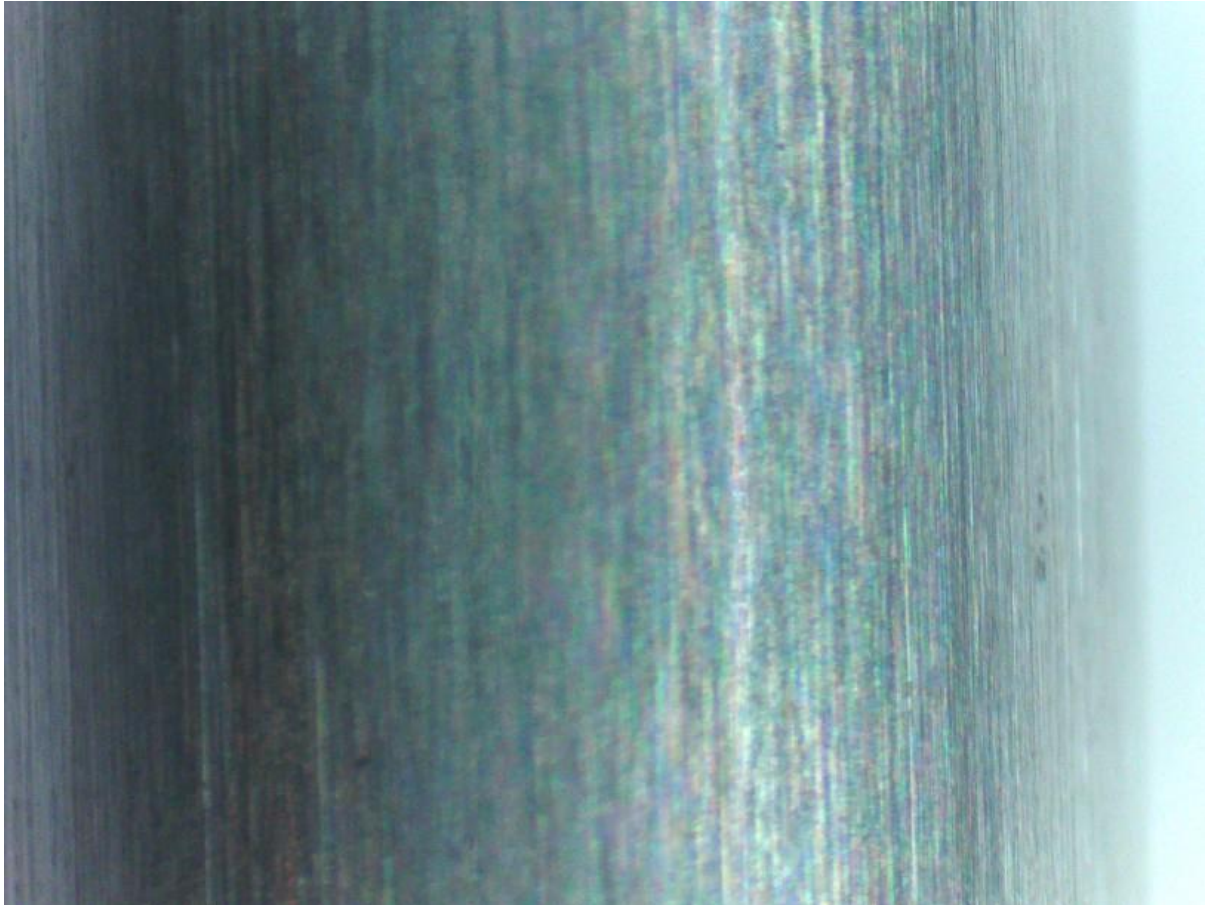
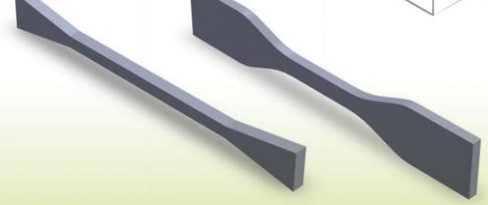
a. STEP 4

Tab.8. Spec 2, Step 4 polishing

STEP 2 Sandpaper grit	P2000
Contact Force	10 N
Polishing Speed	4200 mm/min
Full rotations	4



Pic.14. Specimen 2 after step 4



Pic.15. Specimen 2 surface after step 4 - microscope photo