# Case Study

## Roughness Tester

## PCE-RT 1200

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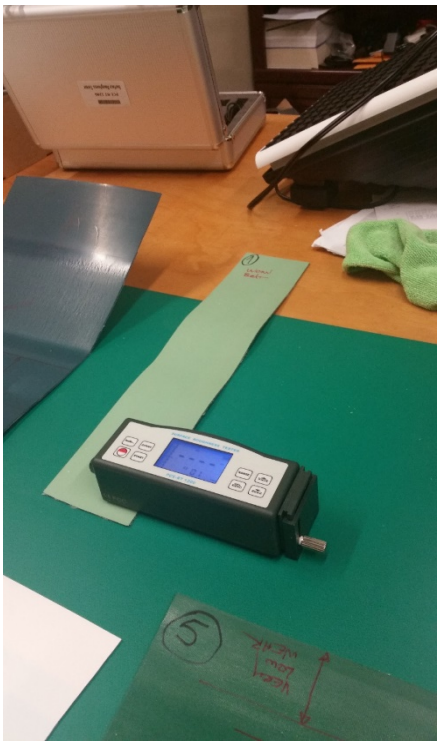
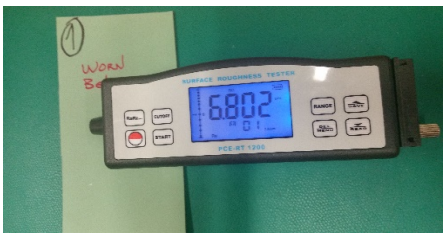
Before testing began, the PCE-RT 1200 Roughness Tester was calibrated using the included roughness standard in accordance with the calibration process outlined in the user manual. The PCE-RT 1200 was then set to measure the **Ra parameter in microns (µm) with a cutoff length of 2.5 millimeters (mm)**. These settings were maintained throughout the testing process to ensure a true comparison.

### Belt Sample #1 – Worn Light Green Belt

The PCE-RT 1200 Roughness Tester was placed in three different positions on Belt Sample #1. For reporting purposes, these positions are labeled as top, middle and bottom, respectively. Measurements were made from top to bottom with the #1 appearing face up in the top corner of the sample.





**Measurement Results**

| | |
|---|---|
| Top | 6.802 µm |
| Middle | 6.942 µm |
| Bottom | 6.569 µm |

## Belt Sample #2 – Worn Teal Belt

The PCE-RT 1200 Roughness Tester was placed in five different positions on Belt Sample #2. These positions were labeled by the customer as relatively new, worn, dry rot, worn and relatively new. Measurements were made from top to bottom with the #2 appearing face down in the top corner of the sample.

### Measurement Results

| | |
|---|---|
| Relatively New | 0.439 µm |
| Worn | 0.366 µm |
| Dry Rot | 7.834 µm |
| Worn | 2.967 µm |
| Relatively New | 0.431 µm |

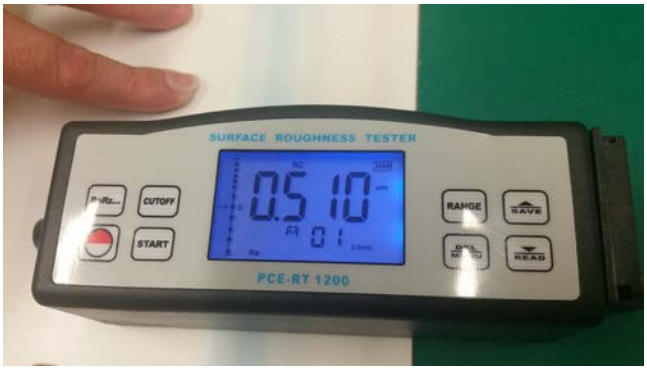


**Belt Sample #3 – Worn White Belt with Blue Vertical Striping**

The PCE-RT 1200 Roughness Tester was placed in three different positions on Belt Sample #3. For reporting purposes, these positions are labeled as top, middle and bottom, respectively. Measurements were made from top to bottom with the #3 appearing face up in the top corner of the sample.

**Measurement Results**

| | |
|---|---|
| Top | 0.477 µm |
| Middle | 0.510 µm |
| Bottom | 0.457 µm |





**Belt Sample #4 – Worn White Belt with Blue Horizontal Striping**

The PCE-RT 1200 Roughness Tester was placed in three different positions on Belt Sample #4. For reporting purposes, these positions are labeled as top, middle and bottom, respectively. Measurements were made from top to bottom with the #4 appearing face up in the top corner of the sample.

**Measurement Results**

| | |
|---|---|
| Top | 0.856 µm |
| Middle | 0.744 µm |
| Bottom | 0.744 µm |



**Belt Sample #5 – Worn Green Belt**

The PCE-RT 1200 Roughness Tester was placed in three different positions on Belt Sample #5. These positions were labeled by the customer as very low wear, worn and very low wear. Measurements were made from top to bottom with the #5 appearing face up in the top corner of the sample.

**Measurement Results**

| | |
|---|---|
| Very Low Wear | 26.64 µm |
| Worn | 13.98 µm |
| Very Low Wear | 23.73 µm |