

Wax Scanning

Executive Summary

Optimet's ConoProbe MK10, suitable for roughness measurements in plastic and waxy materials, was used in the application of wax material scanning. The tests were performed to demonstrate measurement capability. All samples were created using liquid wax. As a result, their surfaces were not uniform. Seven objects made from different wax colors were measured:

- Black wax
- Pink wax
- Blue wax
- Red wax
- Yellow wax
- Purple wax
- Beige wax

All samples were measured with good results.

1. Optimet's Advantages over Other Technologies:

1. Optimet's technology is most suitable for roughness measurements in wax and plastic materials due to its collinearity properties (in contrast to the triangulation techniques).
2. Capability to measure sharp angles in minimum clearance
3. High lateral resolution
4. High sampling rate with no need for averaging

2. Application Description

Seven objects made from different wax colors were measured using ConoProbe MK10.



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3. Results and Observations

The tests were performed in order to measure the wax surfaces.

Sample 1

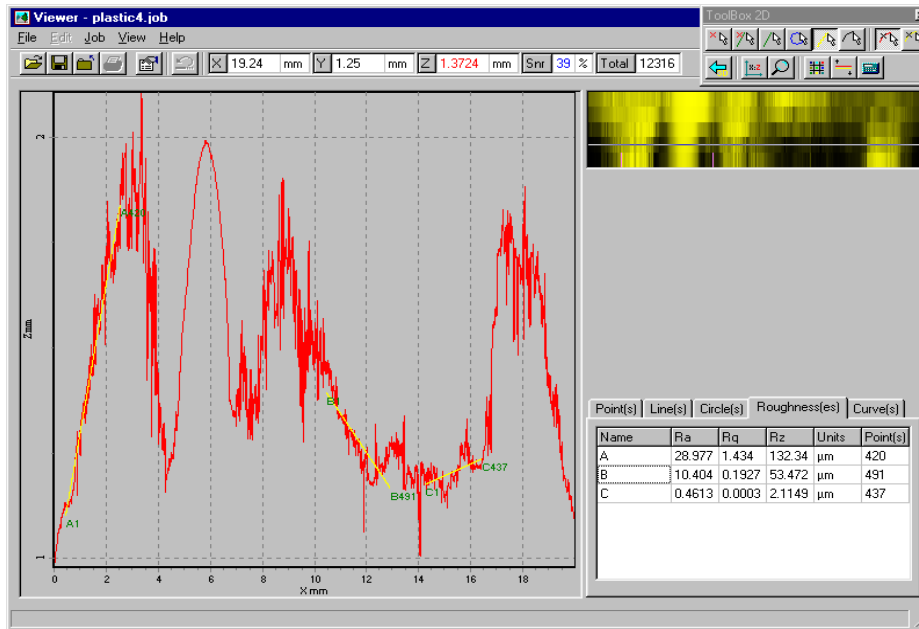


Figure 1 - Black wax profile

Sample 2

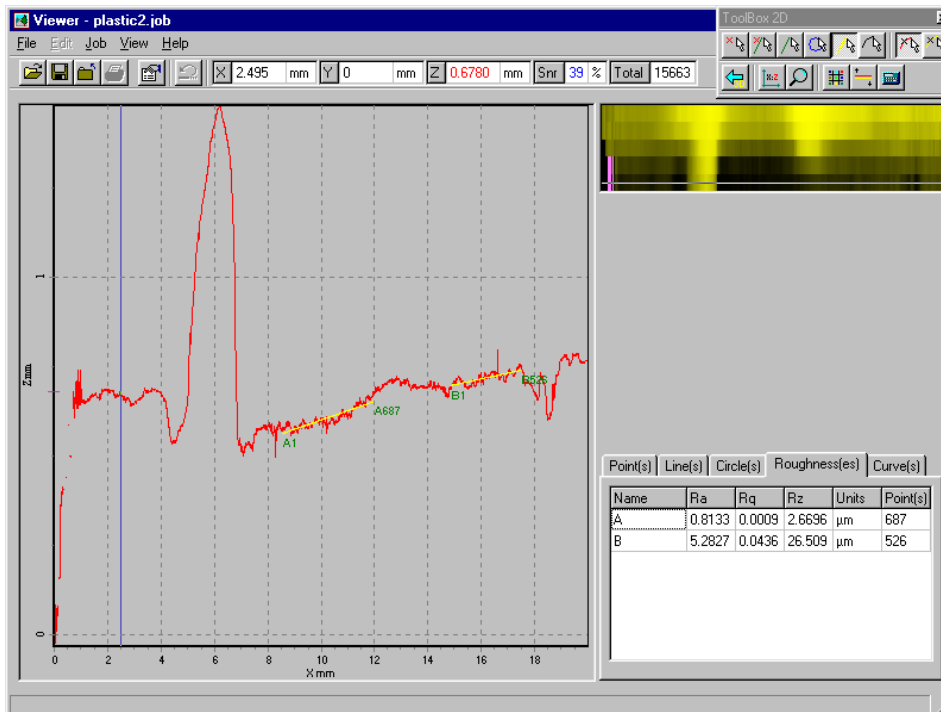


Figure 2 - Pink wax profile



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Sample 3

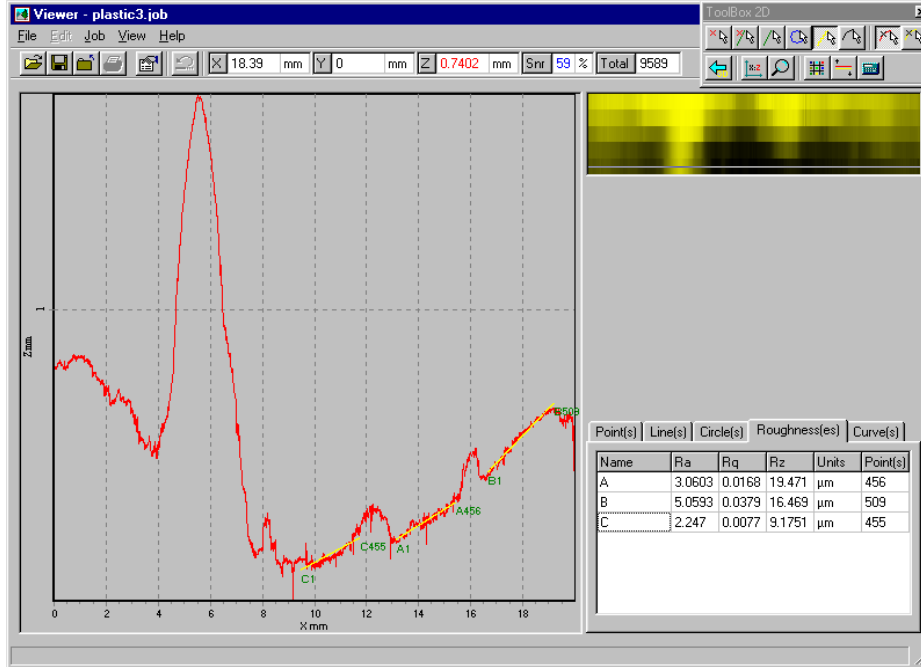


Figure 3 - Blue wax profile

Sample 4

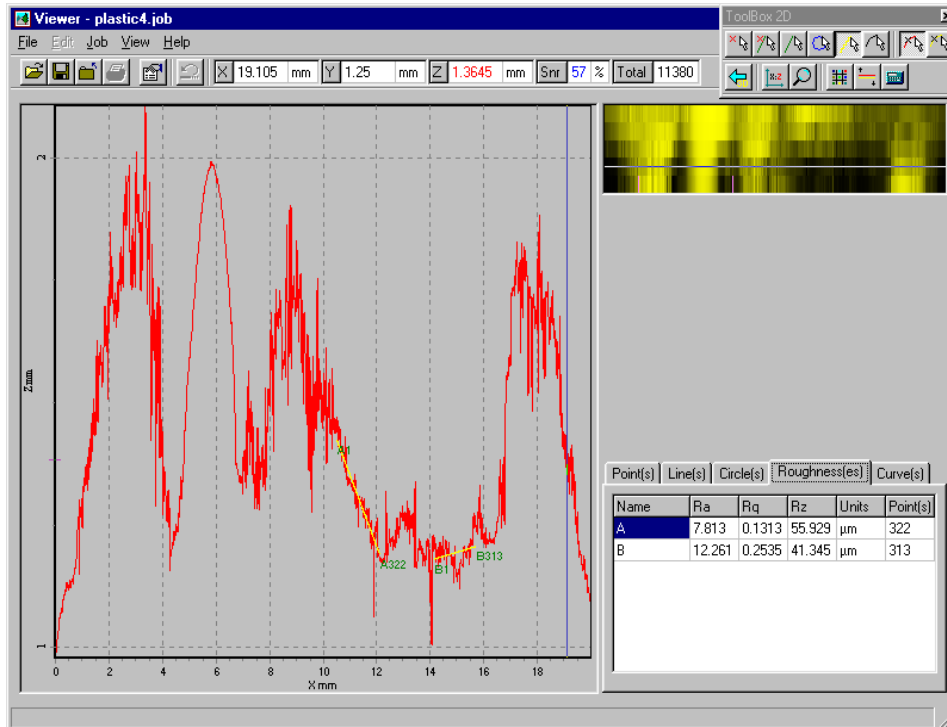


Figure 4 - Red wax profile



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Sample 5

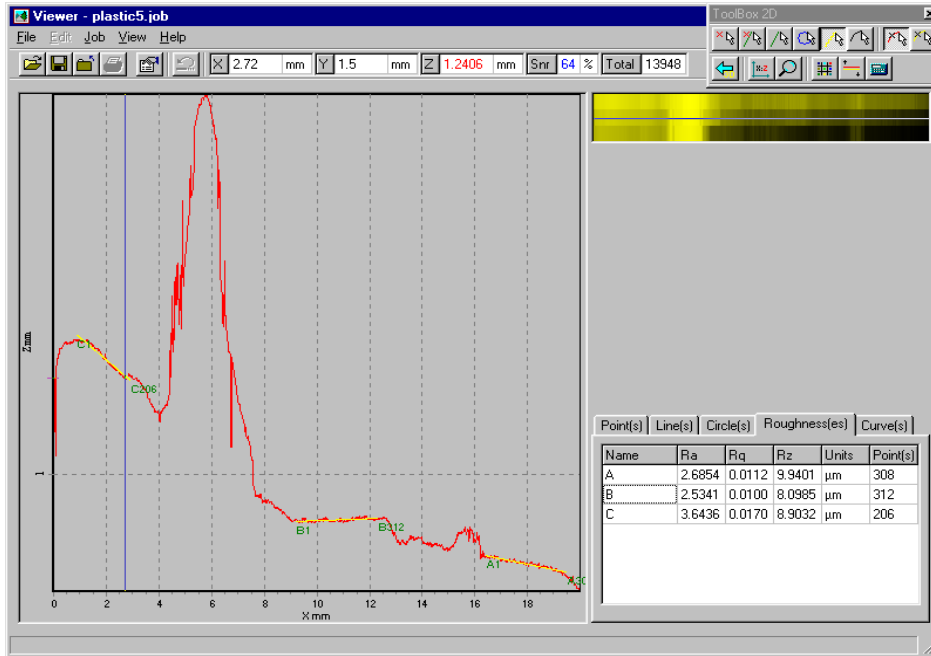


Figure 5 - Yellow wax profile

Sample 6

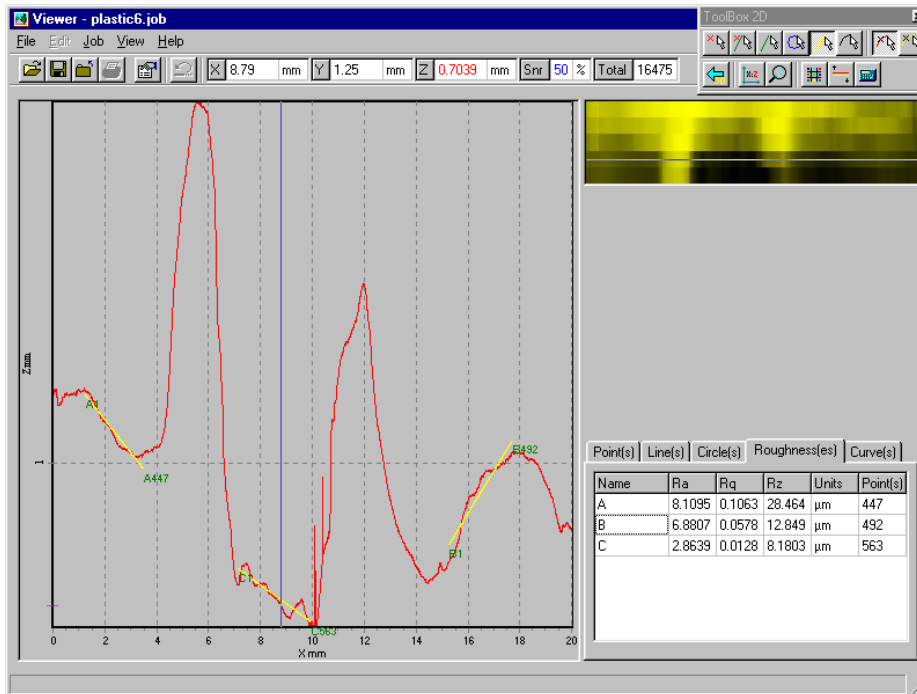


Figure 6 - Purple wax profile



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Sample 7

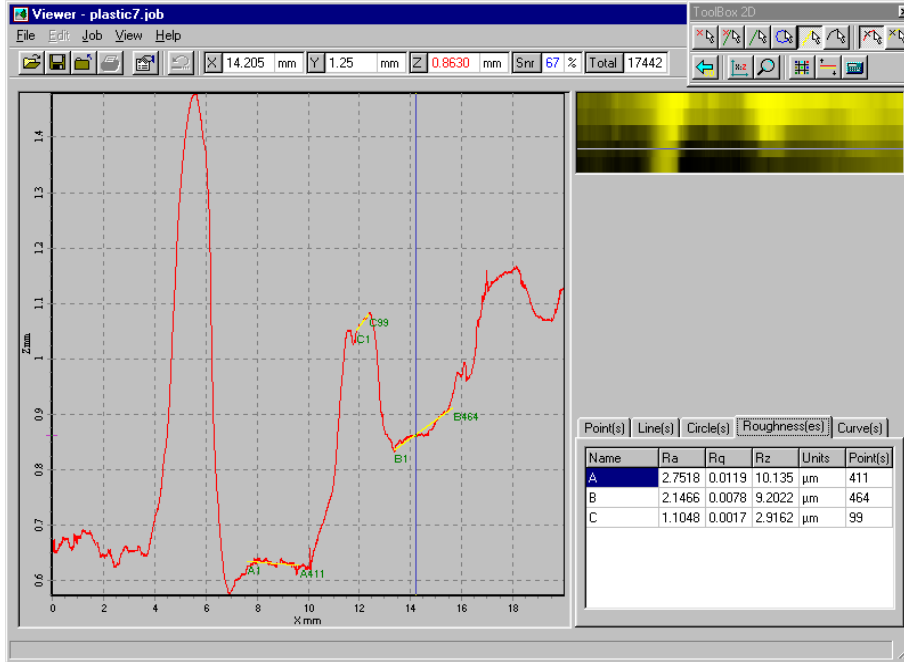


Figure 7 - Beige wax profile

4. Data:

For 25mm and 50mm focal lenses:

Parameter	Value
Reflective/Diffusive/Transparent/Translucent	Diffusive
Working Range (mm)	1.8/8
Precision (µm)	3/6
Stand Off (mm)	15/35
Max. Data Rate (mm/sec)	60
Lateral Resolution	-
Z Resolution	-
Application Category	-