

## HARDNESS AND POROSITY VOLUME % IN SINTERED PART

**Report Type:** Sintered block

**Department:** R&D

**Analysis Type:** To determine porosity volume fraction variation across a sintered part compared to its Vickers hardness.

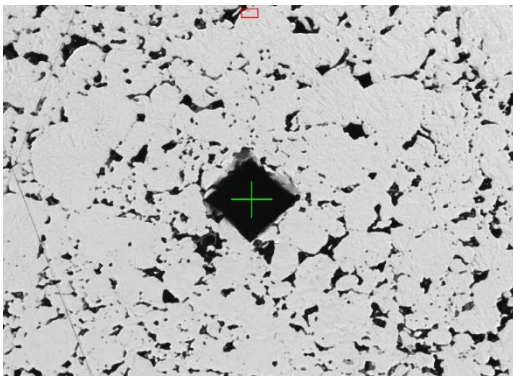


Figure 1: Original image after indentation.

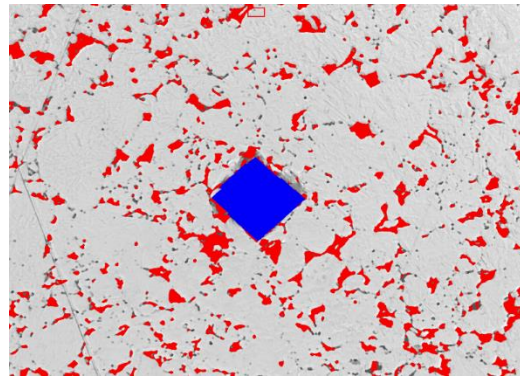
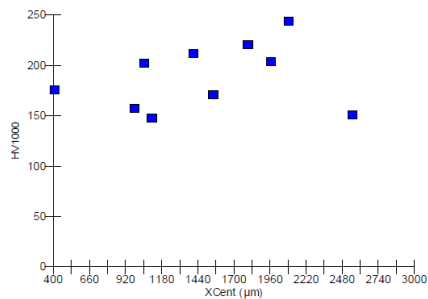


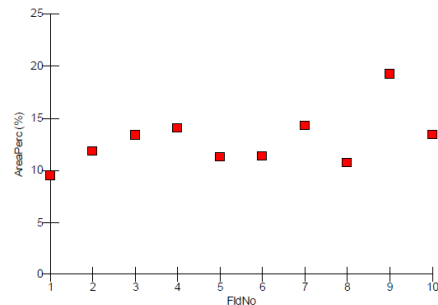
Figure 2: Porosity and indent are detected and assigned in different bitplanes.

### Results:



**Min:** 147 HV  
**Max:** 243 HV  
**Avg:** 188 HV  
**STD:** 32.5 HV

Figure 3: Vickers hardness measurements.



**Min:** 9.51 %  
**Max:** 19.24 %  
**Avg:** 12.90 %  
**STD:** 2.72 %

Figure 4: Porosity Vol.% variation across the sintered part.

### Comments:

PASS