



# SHAREBOT

MetalONE updates 10-2019

## Dear supporters,

We have first characterization images of a cube printed with our metalONE with stainless316L metal powder and different parameters

We did a job using the "test mode" with a cube sliced with layer height 0,03mm, hatching 0.1 and varying the power along the X axis from 70 to 90 up to 110 Watts (ie from 28 to 44% of laser power) and speed along the Y axis from 300 to 400 with 50mm / s steps.

The build sequence was the following:

3 6 9

2 5 8

1 4 7

1 - 70W 300 mm / s

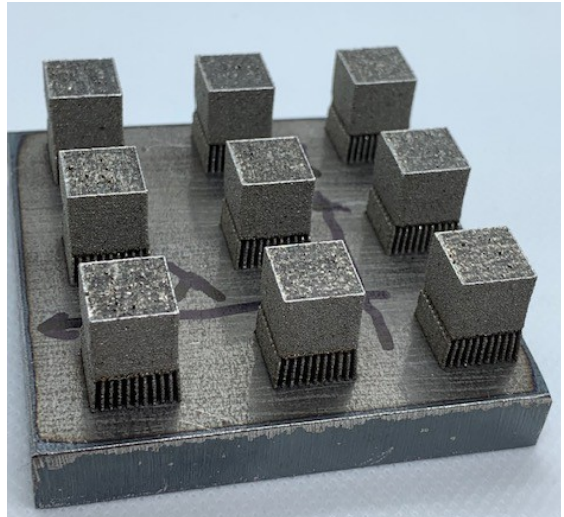
2 - 70W 350 mm / s

3 - 70W 400 mm / s

4 - 90W 300 mm / s

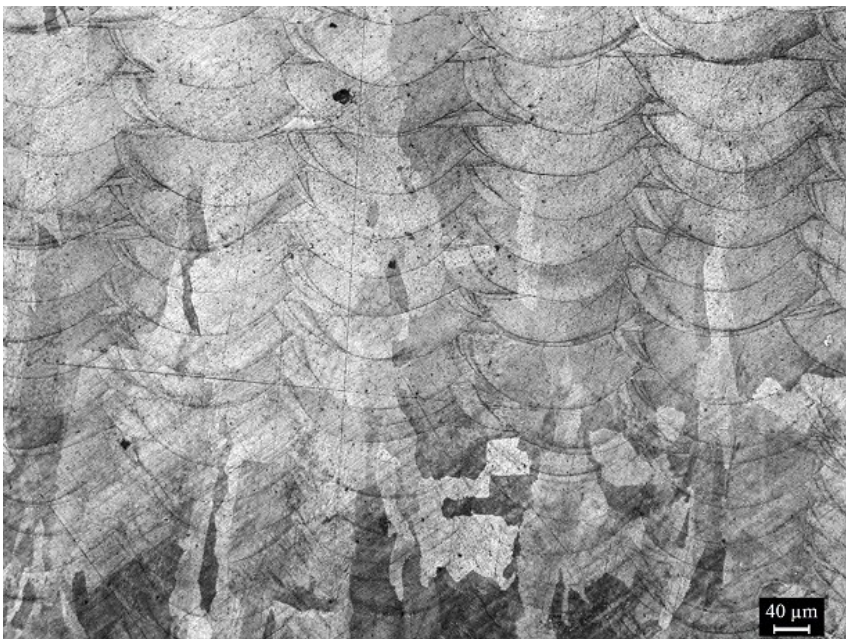
The construction time of the cubes was about 4:45.

Powder used: Hoganas 316 L 20-53 my



## images from characterization

sectional view (see the melting pools one above the other);

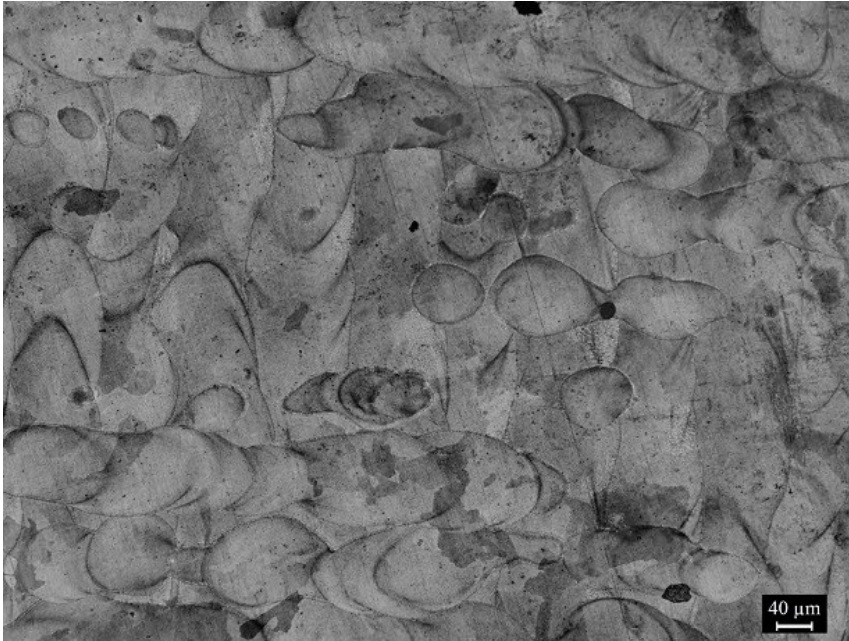


From this photo we understand that there is no rotation (the fusion pools are one above the other), moreover we see some inclusion of oxide and we can guess a columnar microstructure and also the size of the grains



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upper view



at not too large magnification without chemical attack (to show that there are no pores),

in few days we will post complete report.

**The metalONE team**