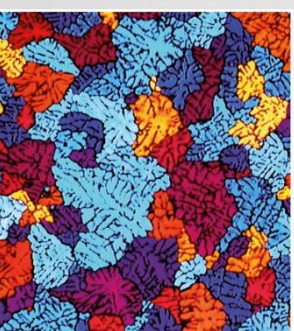
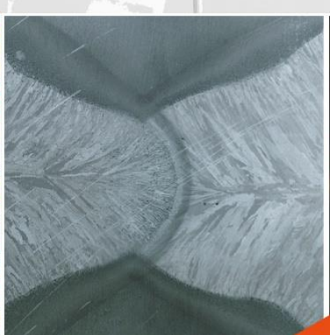
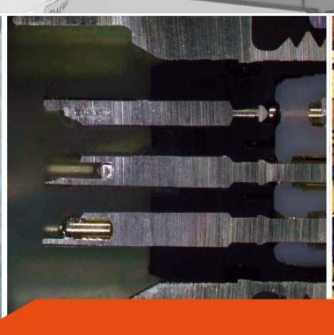
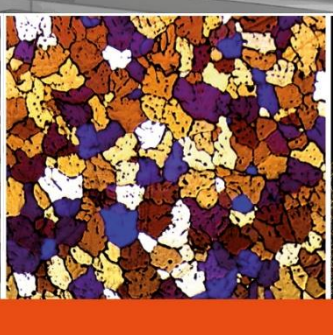
QATM
QUALITY ASSURED

Application lab report

Cutting of pressed plastic plates


QATM-Preparation method

Objective:

One segment out of the sample, in shape of a max. 3x3 mm cube, was cut using the Brillant 220. The background for the cutting trials were not known at the time of testing. Detailed preparation steps and the achieved results can be seen in the following.

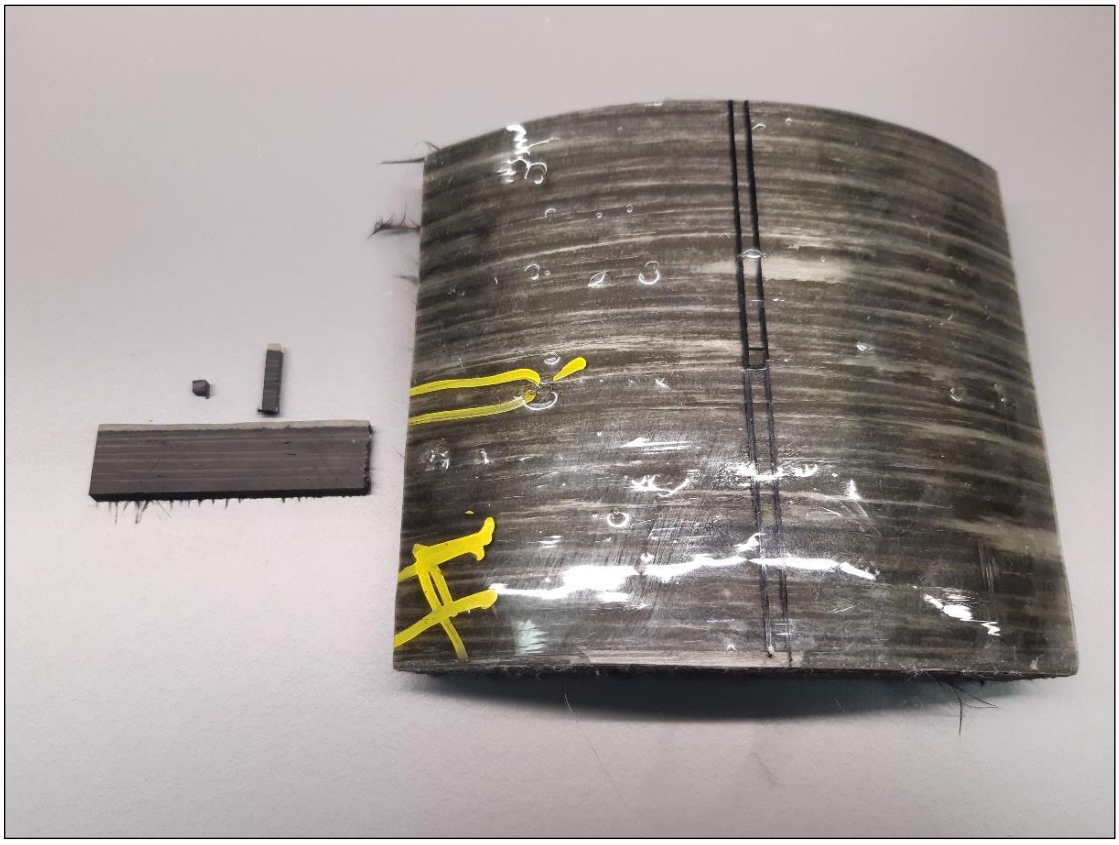


Figure 1: The as received sample and samples after cutting.

QATM-Preparation method

Cutting

Cutting			
Device	Cut-off disc	Anti-corrosion coolant	Clamping tool
Brillant 220	Diamond cut-off wheel 92007707	QATM Standard 95014281	-Fast lock vice 50 (Z2270000) -Fast lock vice 60 (Z2235001) -2 x Easy-clamping base M (Z2236008)
Cutting method			
Automatic X-Axis and Y-Axis cut.			
Parameters			
Feed speed	Pulse parameter	Cut-off disc rotational speed	
X-Axis: 0,150 mm/s Y-Axis: 0,050 mm/s	Without puls	2500 rpm	
Notes			
- After the last cut there is a burr on the cube (see Figure 12). - To save time the component should be shortened before cutting. - Cutting time for the two long cuts: approx. 35 min			

QATM-Preparation method

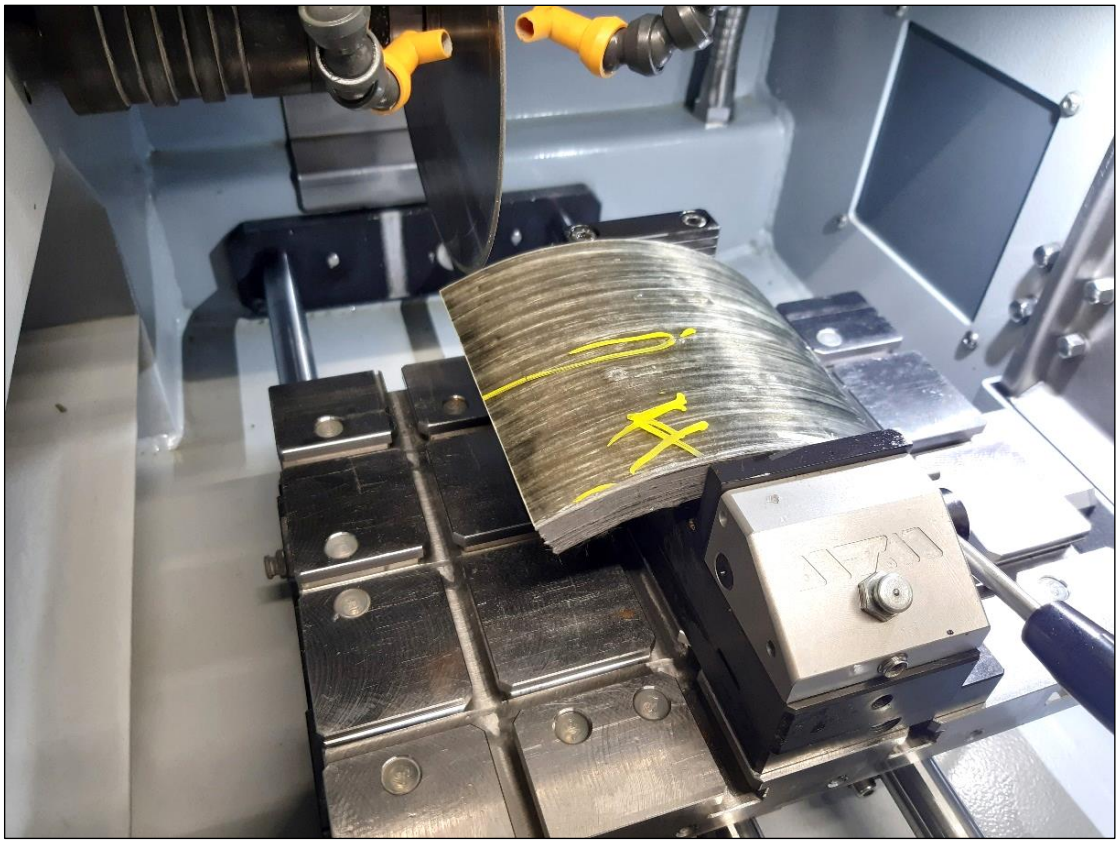


Figure 2: How to clamp the sample in fast lock vice 60 before the first cut X-Axis.

Figure 3: The sample after first two cuts X-Axis.

QATM-Preparation method

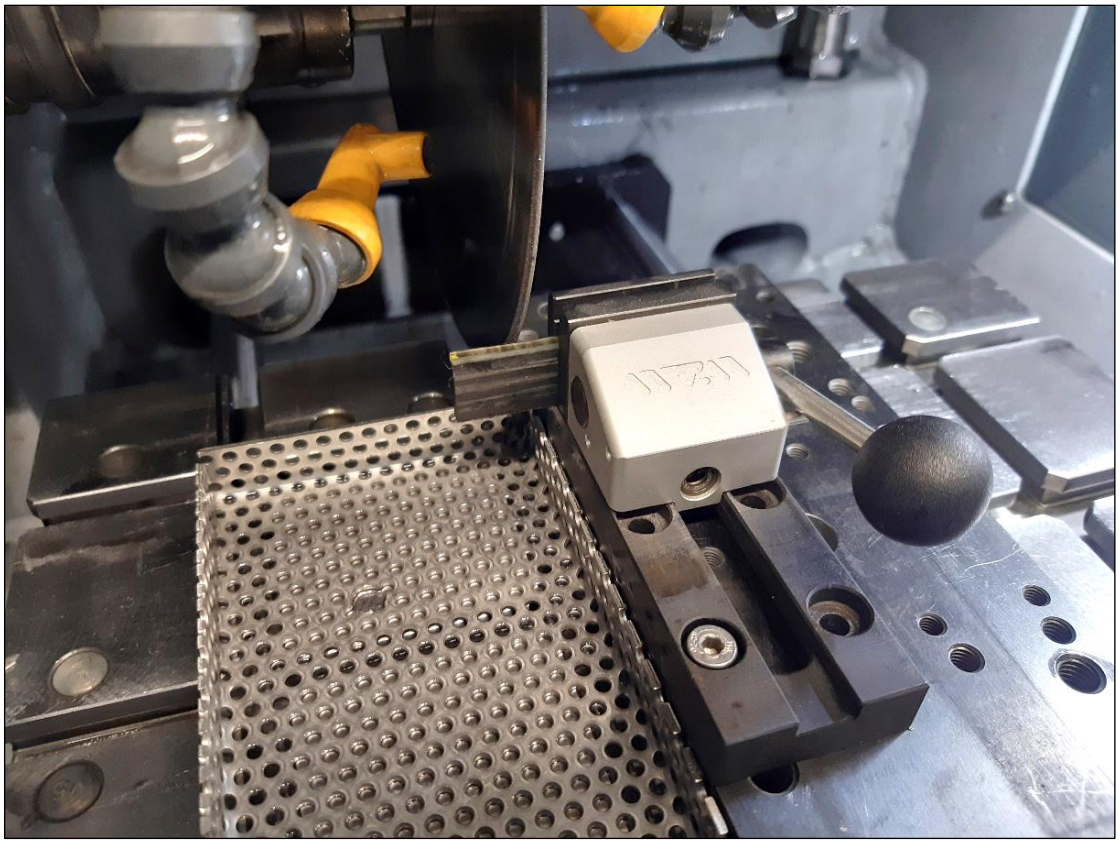


Figure 4: Clamping solution for the next cuts X-Axis.

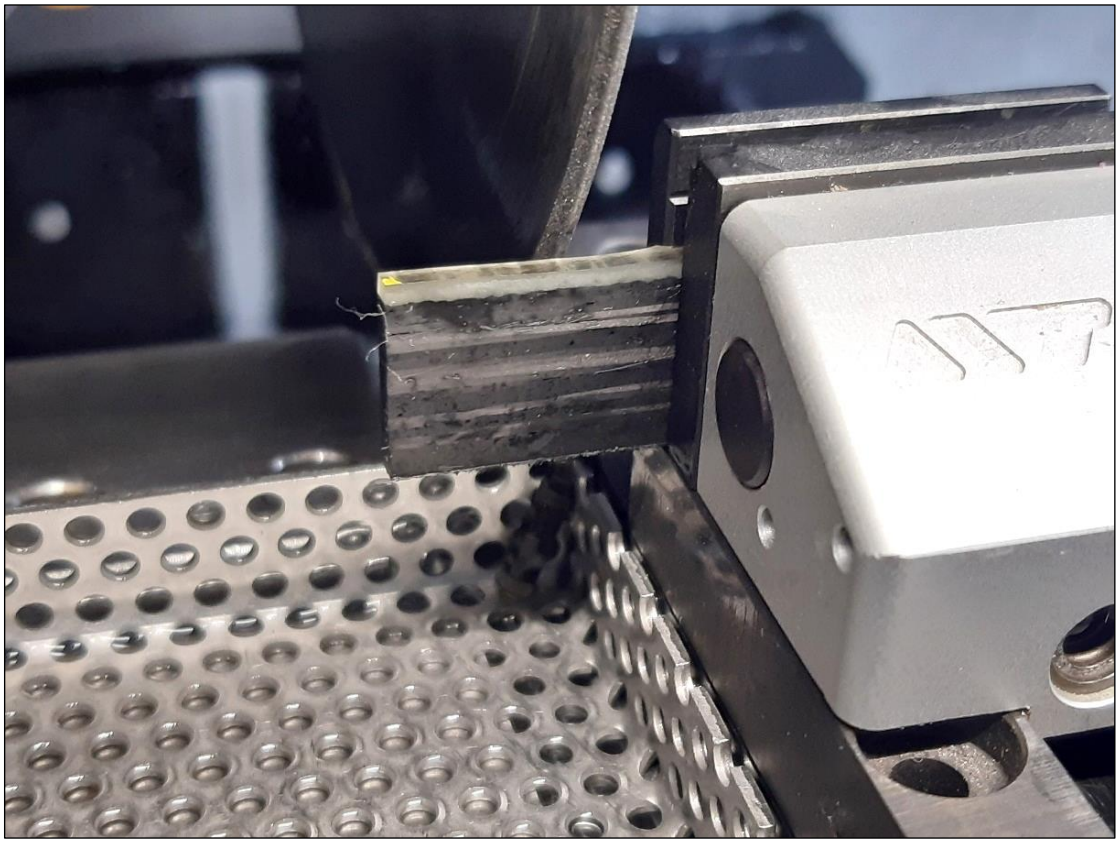


Figure 5: Detailed image of figure 4 X-Axis.

QATM-Preparation method

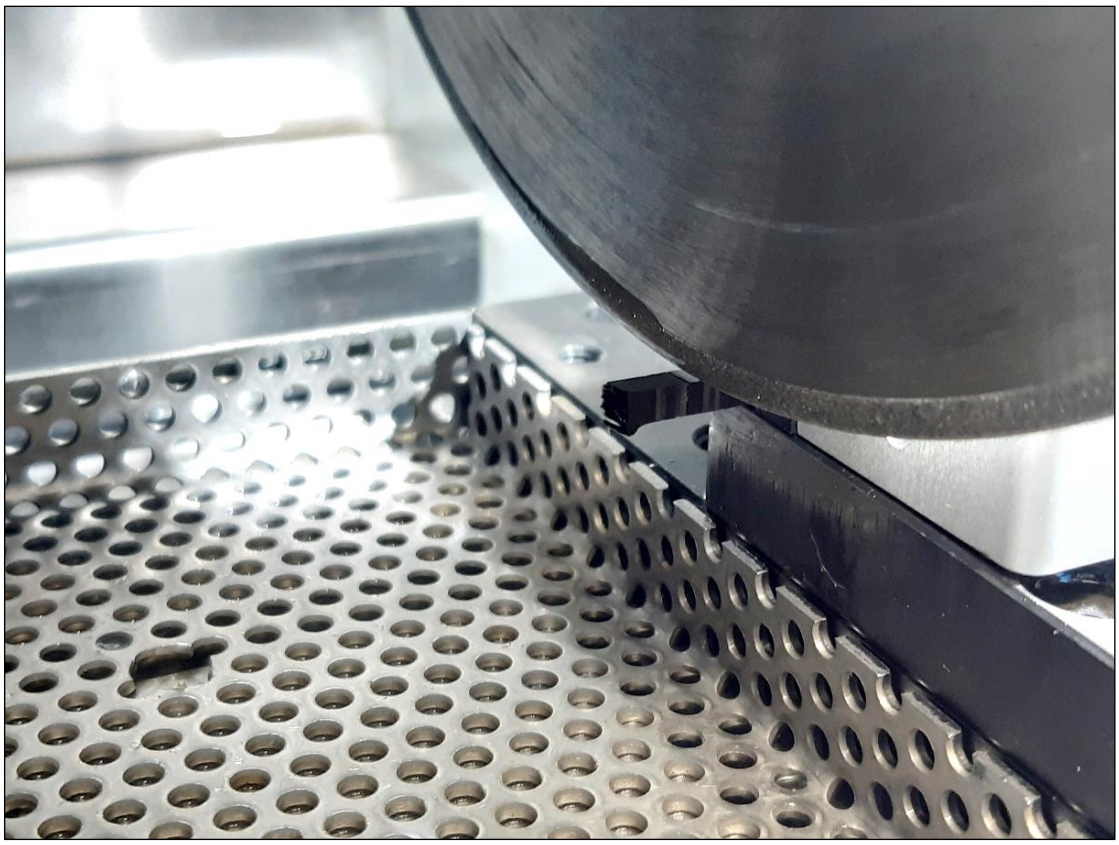


Figure 6: Clamping solution for the last two cuts Y-Axis.

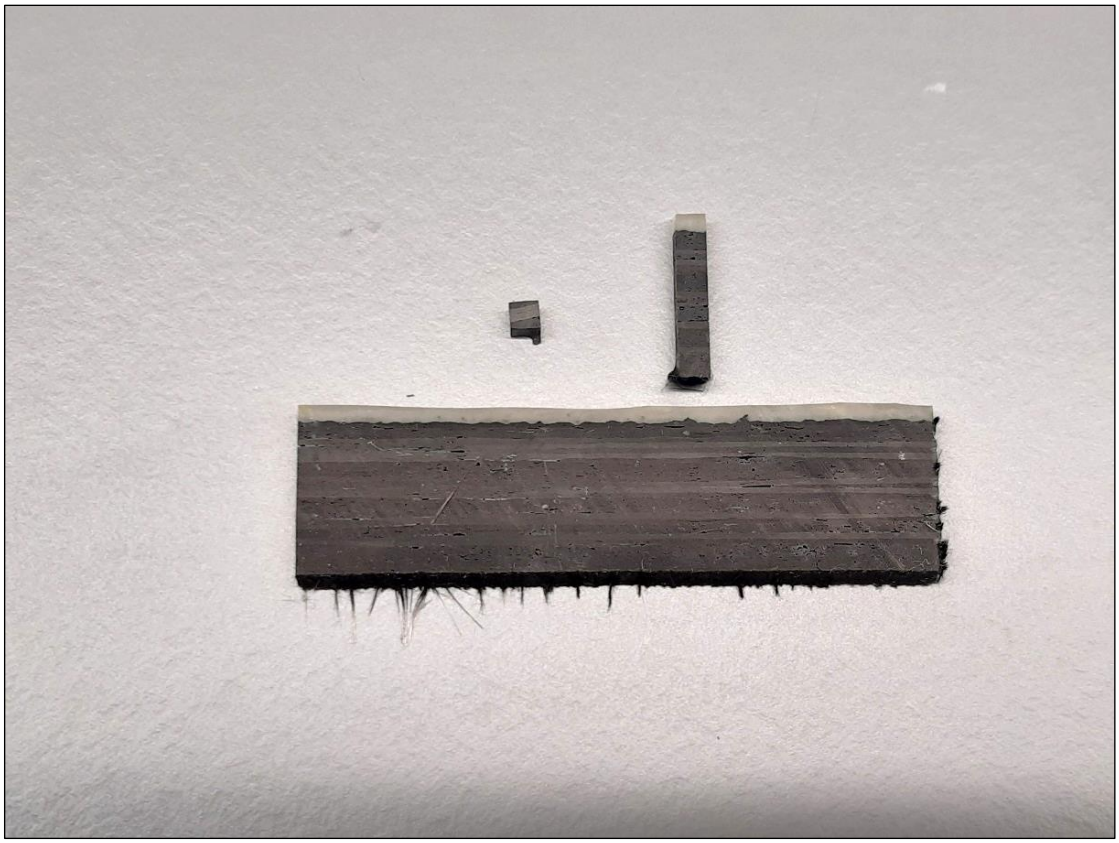


Figure 7: The cut segments.

QATM-Preparation method

Figure 8: Cut sample measured with MarCal 16 ER caliper.

Figure 9: Cut sample measured with MarCal 16 ER caliper.

QATM-Preparation method

Figure 10: Cut sample measured with MarCal 16 ER caliper.

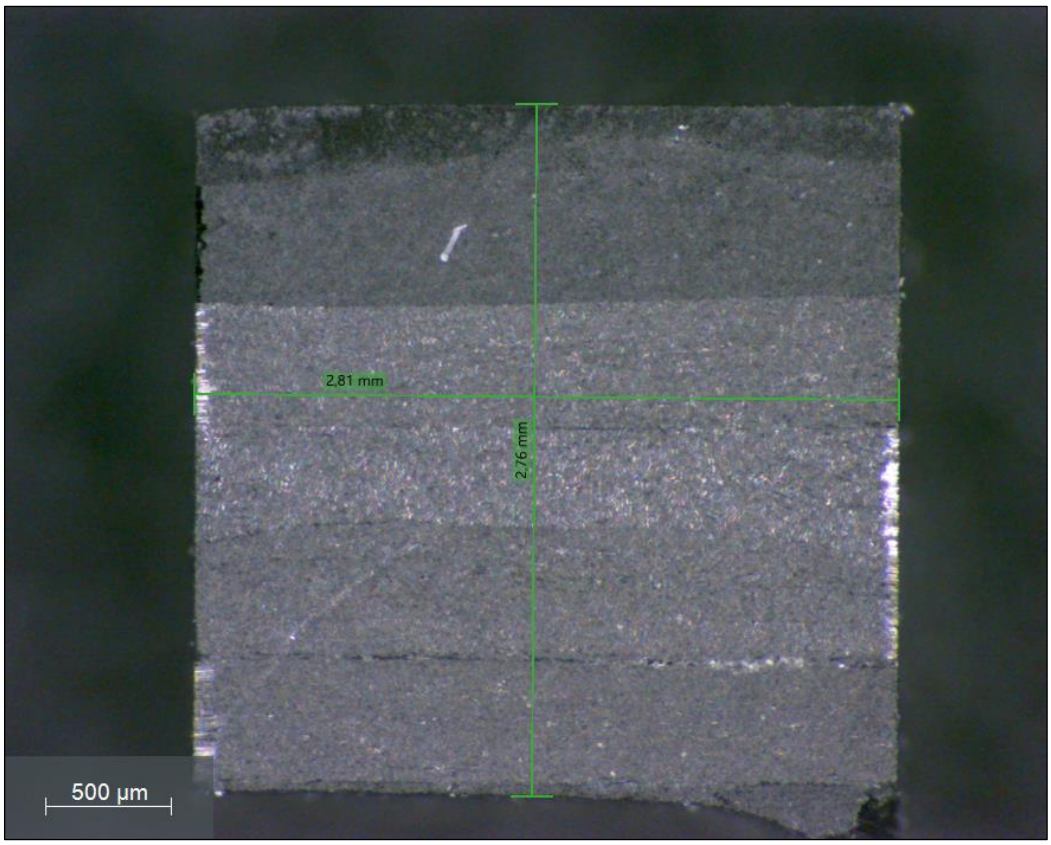


Figure 11: Microscope Leica M125 C – 32x.

QATM-Preparation method

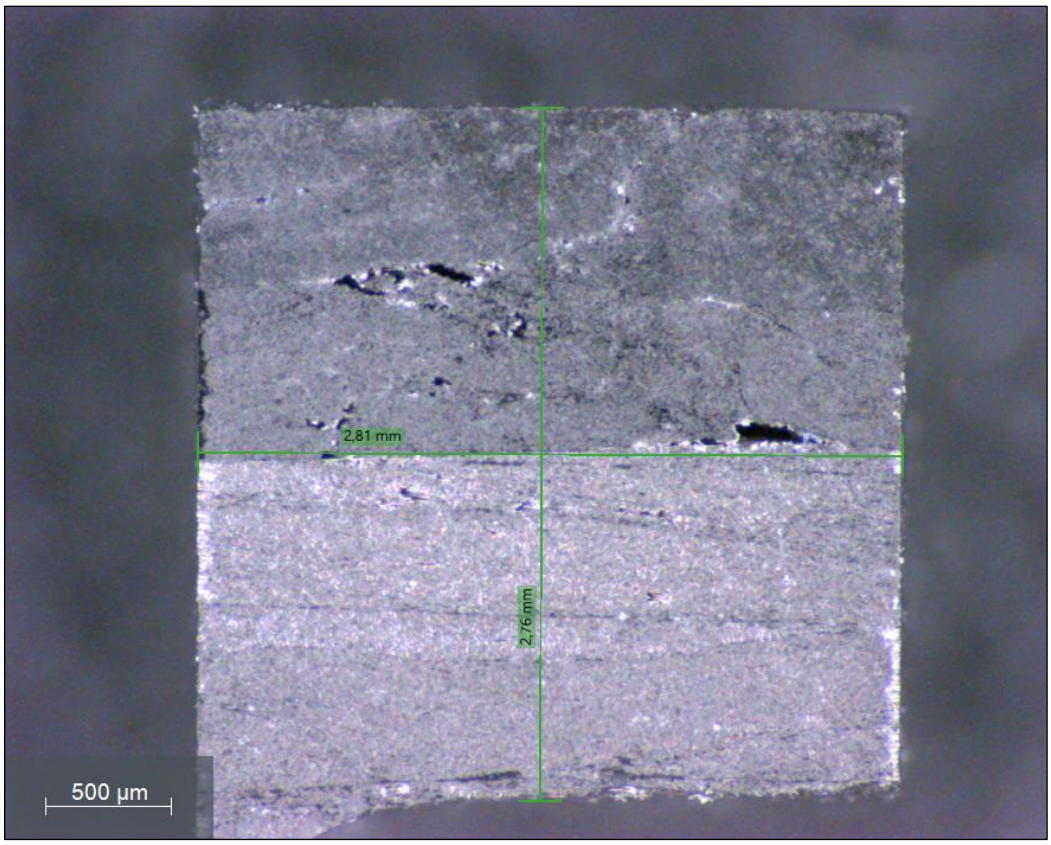


Figure 12: Microscope Leica M125 C – 32x.

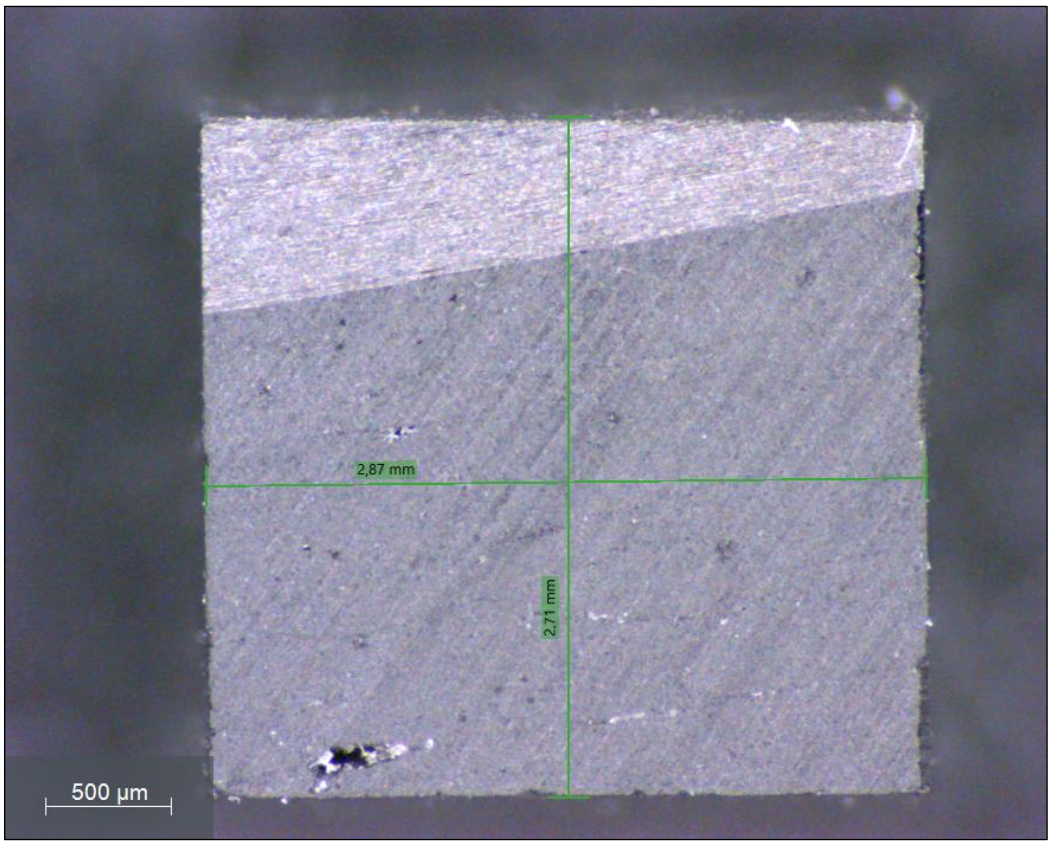


Figure 13: Microscope Leica M125 C – 32x.