

Aka-Brief #8 Titanium Alloys

1						➡➡➡➡	
	Piatto 220+	Water	300 rpm	20 N	Until plane		
2							➡➡➡➡
	Allegran 3	DiaUltra 6 µm	150 rpm	30 N	4:00 min		
3						➡➡➡➡	
	Chemal*	Fumed Silica 0.2 µm Alkaline**	150 rpm	25 N	5:00 min		

Times are stated for a 300 mm preparation system and forces for an individual 40 mm dia. sample.

On a 250 mm system the times should be increased by 30%, on a 200 mm system by 100%.

With larger samples the force should be increased, with smaller samples decreased.

The rotational speed of the head (sample holder or sample mover plate) used is 150 rpm.

Time and force may vary depending on the equipment.

* Prior to oxide polishing the polishing cloth should be wetted with water until the holder touches the polishing cloth. For the last 10 seconds of the oxide polishing step, the polishing cloth should be flushed with water to clean both sample(s) and polishing cloth.

** 96 ml Fumed Silica,
2 ml H₂O₂ (30%),
2 ml NaOH (10%)

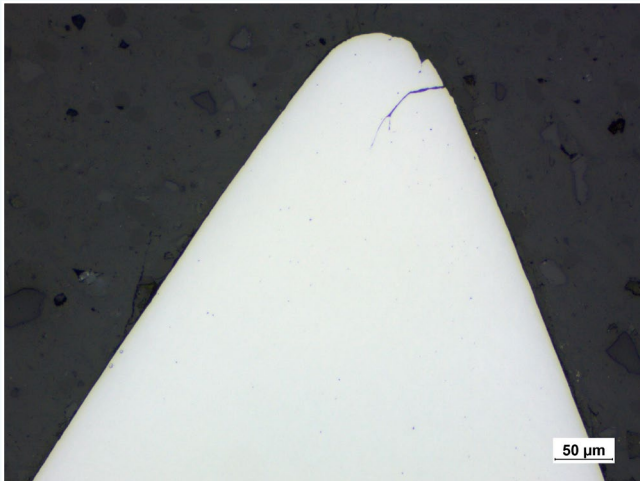
The mixture should be used fresh (within a couple of hours) and stirred regularly.

Please make sure that all necessary safety precautions are taken when handling chemicals.

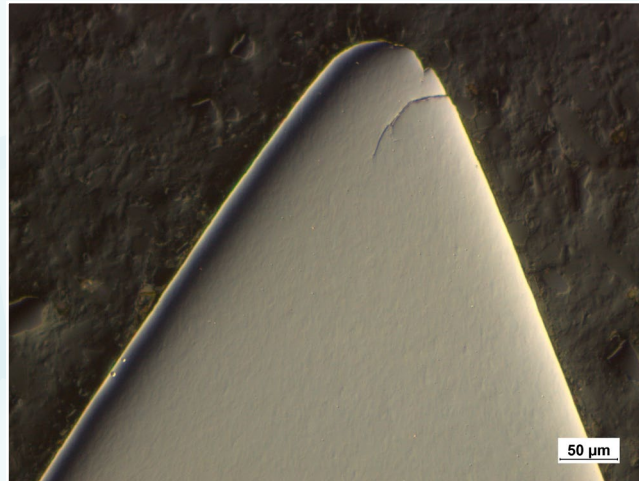


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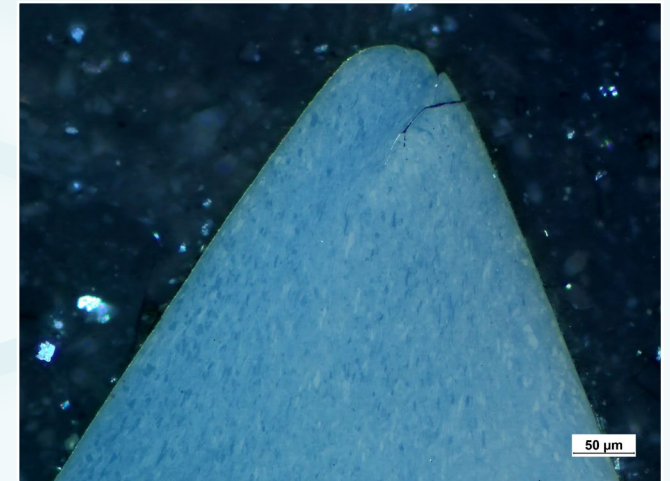
FINAL RESULT



Ti6Al4V, BF, 200x



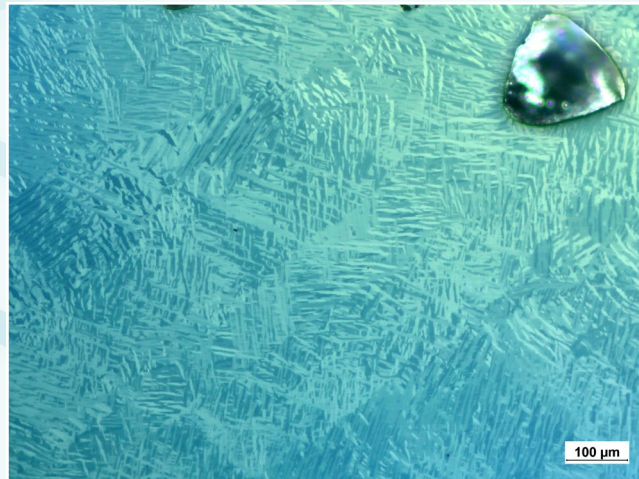
Ti6Al4V, DIC, 200x



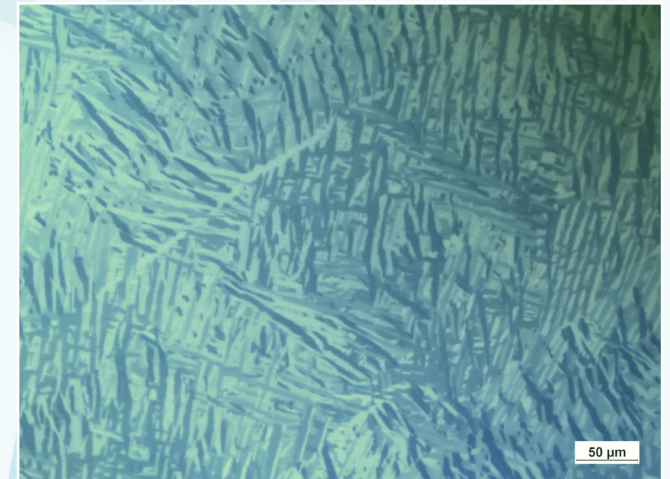
Ti6Al4V, POL + Lambda Compensator, 200x



Ti6Al4V, Additive Manufacturing,
DIC, 100x



Ti6Al4V, Additive Manufacturing,
POL + Lambda Compensator, 100x



Ti6Al4V, Additive Manufacturing,
POL + Lambda Compensator, 200x