Aka-Brief #7 Stainless and Duplex Steels





















Piatto 220+







30 N



2:30 min







DiaUltra 6 µm











3

Daran

DiaUltra



3 µm

150 rpm

2:00 min









Chemal*



Fumed Silica 0.2 µm Alkaline



150 rpm





30 N

15 N



2:00 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.

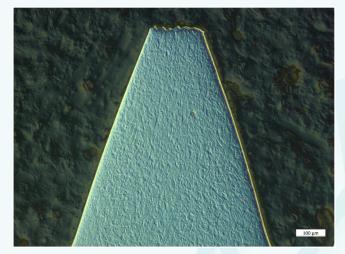
* Prior to oxide polishing the polishing cloth should be wetted with water until the holder touches the polishing cloth. For the last 10 seconds of the oxide polishing step, the polishing cloth should be flushed with water to clean both samples and polishing cloth.

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



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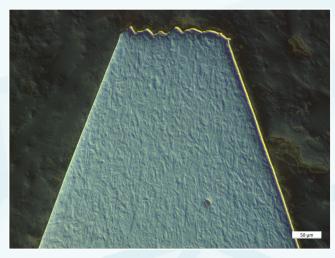
FINAL RESULT



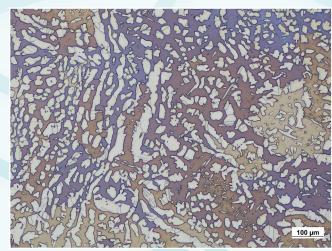
Stainless Steel fastener, DIC, 100x



Duplex Steel, DIC, 100x



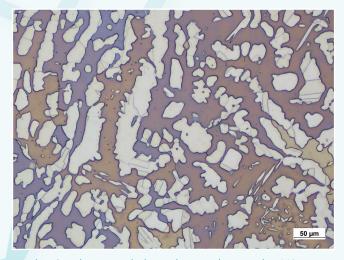
Stainless Steel fastener, DIC, 200x



Duplex Steel, external electrolytic etching with 40% aqueous sodium hydroxide, BF, 100x



Stainless Steel fastener, external electrolytic etching with 10% aqueous oxalic acid, BF, 50x



Duplex Steel, external electrolytic etching with 40% aqueous sodium hydroxide, BF, 200x

