

Images below are taken from the failed brass fittings. All metallographic images show samples etched in a solution of ammonium hydroxide (NH_4OH), 3% hydrogen peroxide (H_2O_2) and water.

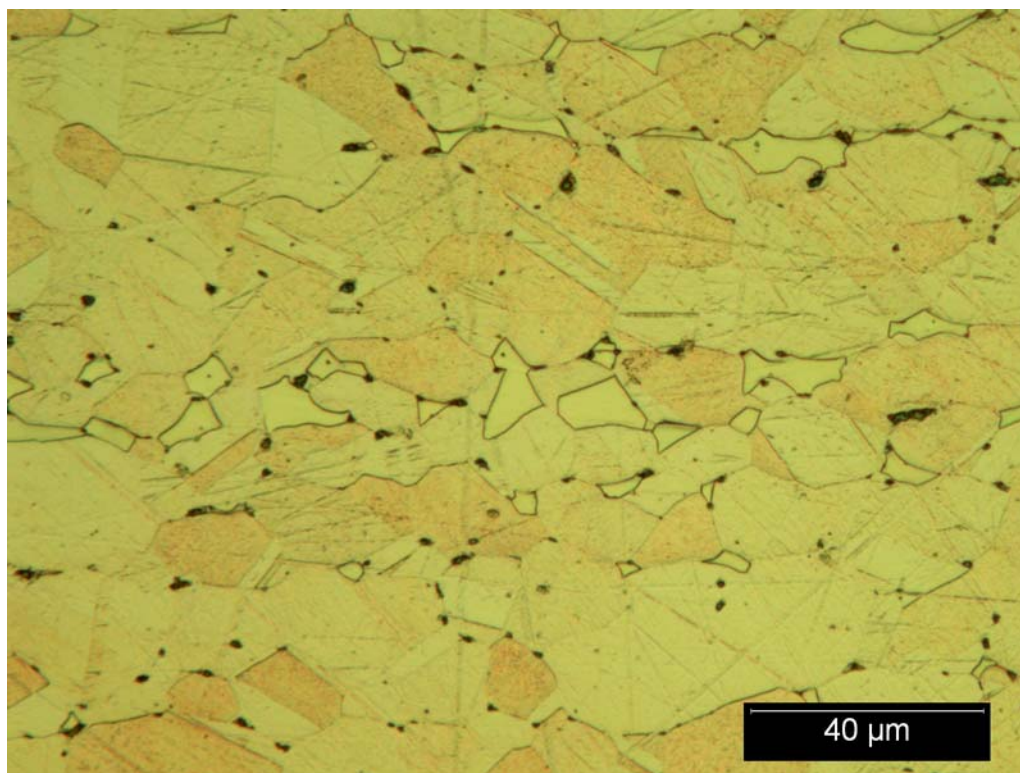


Figure 1. Metallographic mount showing beta network in the failed fitting, 500x.

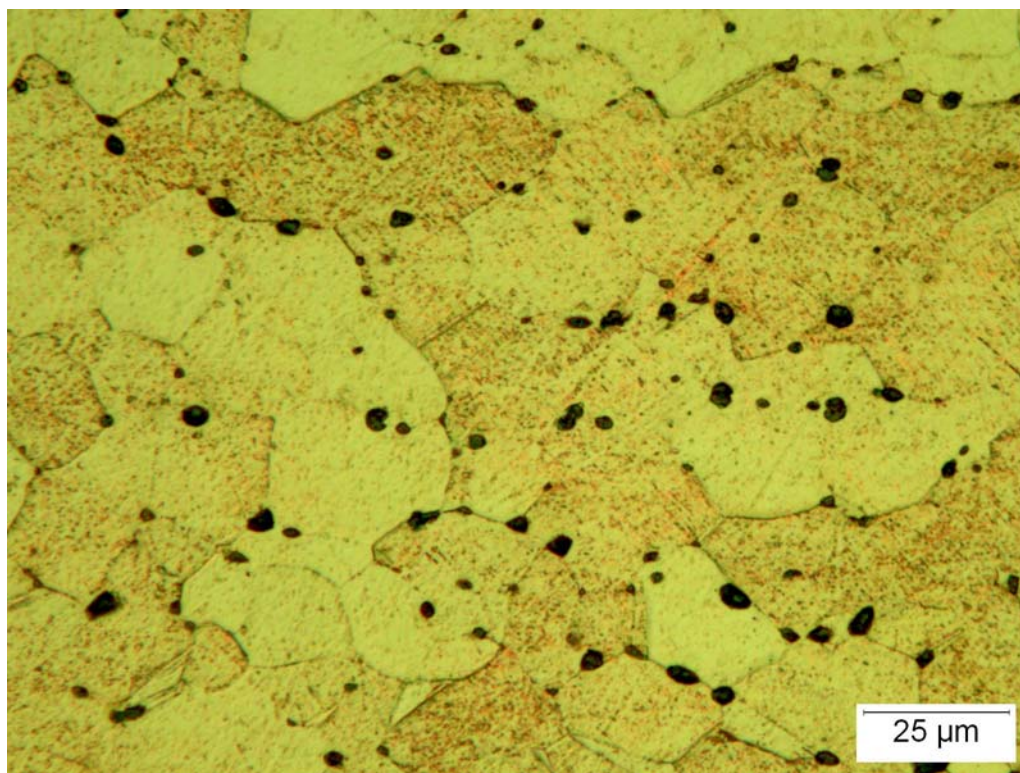


Figure 2. Metallographic mount showing lead distribution in the failed fitting, 500x.

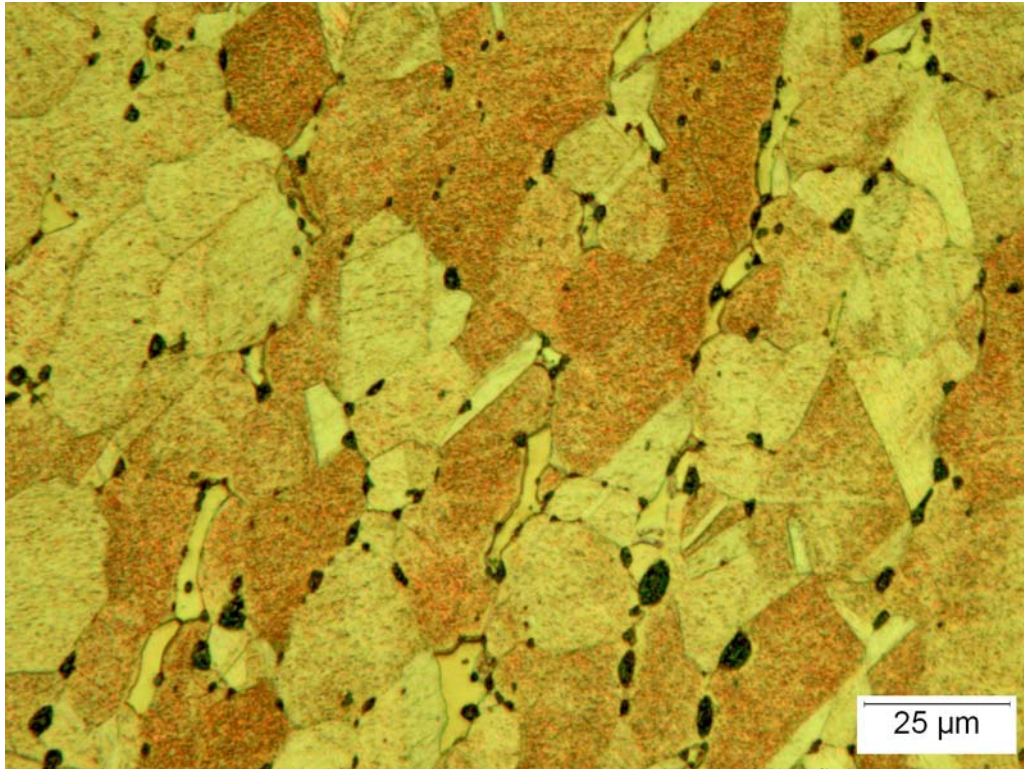


Figure 3. Metallographic mount showing beta network in the failed fitting, 200x.

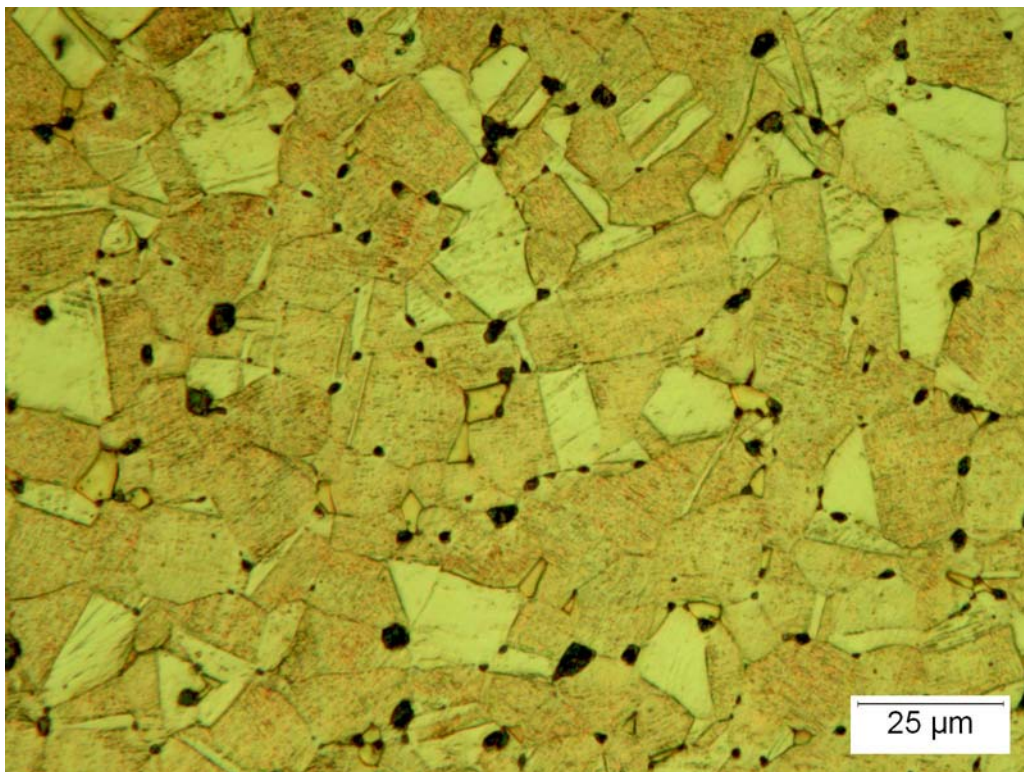


Figure 4. Metallographic mount showing beta in the failed fitting, 500x.

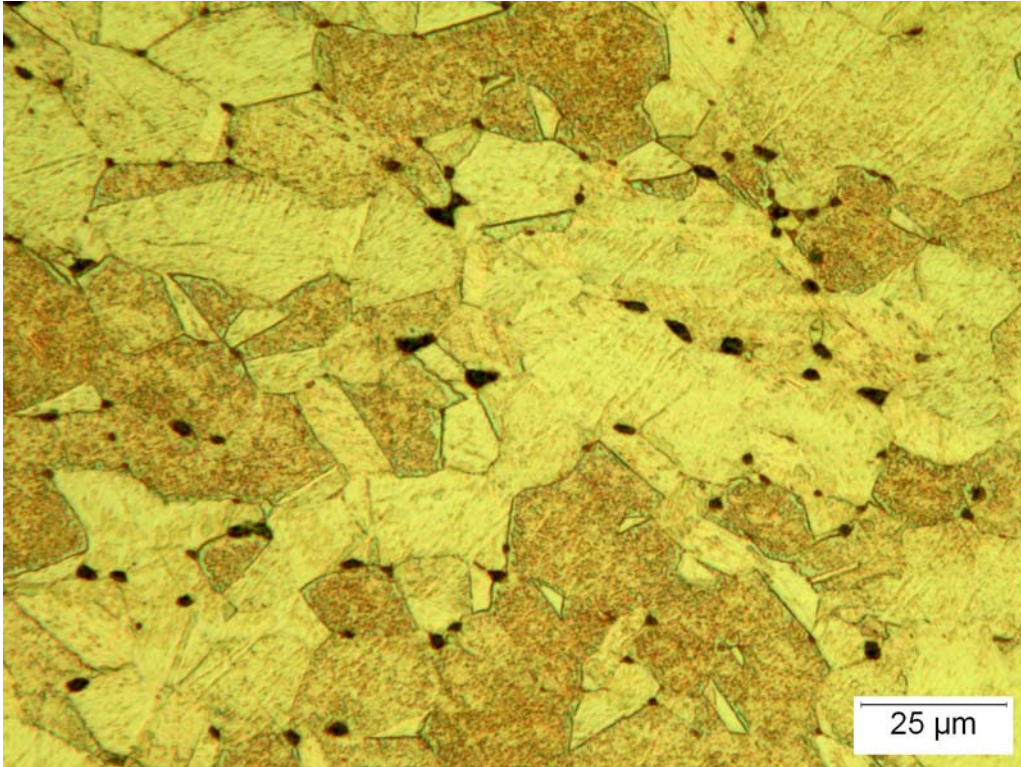


Figure 5. Metallographic mount of a non-failed fitting, 500x.

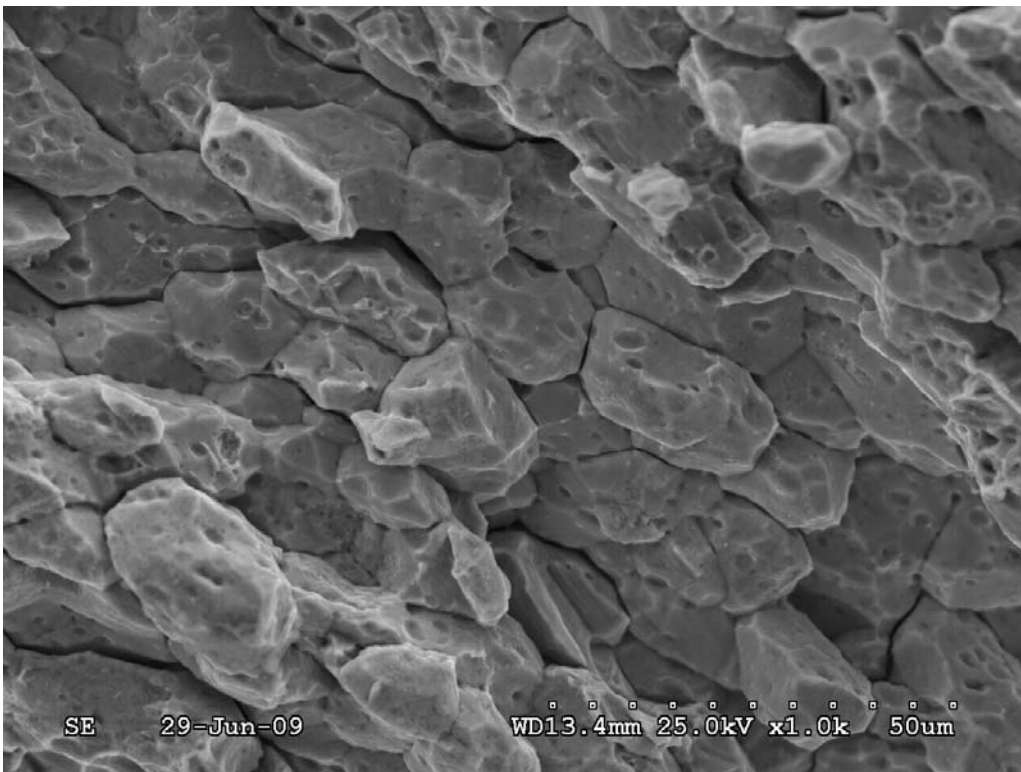


Figure 6. SEM image of fracture surface of October failure showing intergranular fracture.

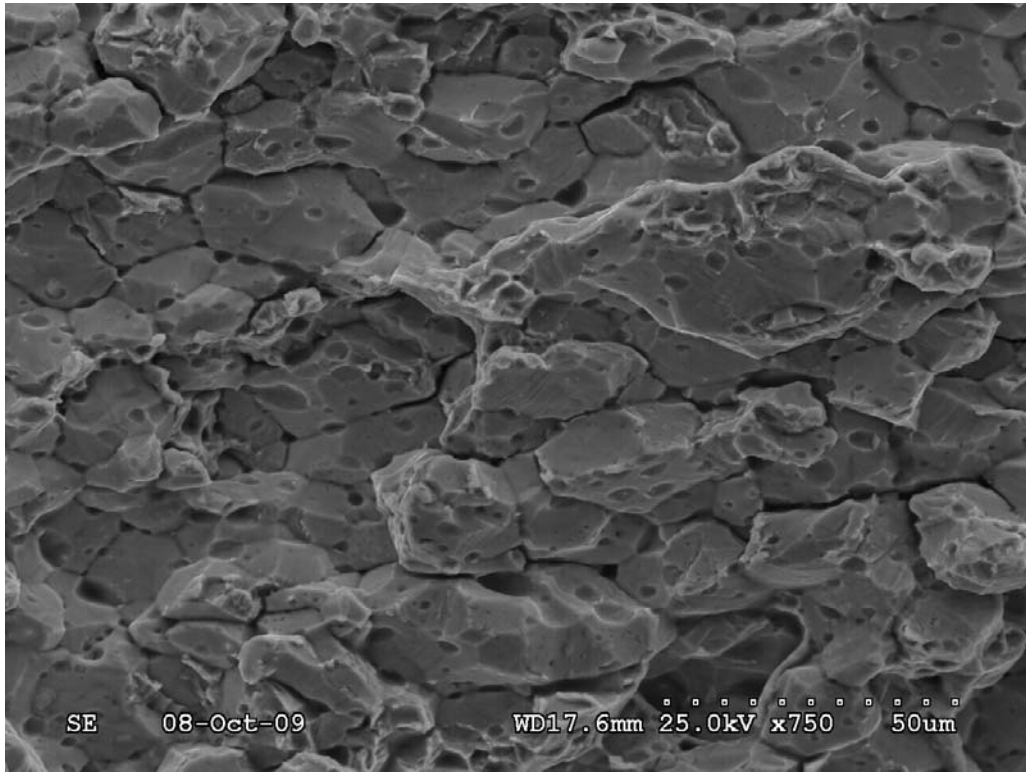


Figure 7. SEM image of fracture surface of October failure showing intergranular fracture.