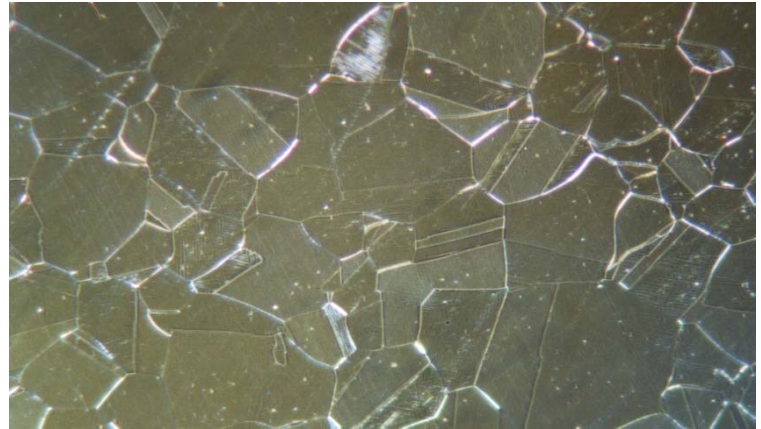


**Material** : AISI 316L Austenitic Stainless Steel

**Method No.** : A12

**Results**

Since the material is highly sensitive against surface deformations, low sample force during mechanical preparation is recommended. Annealed twins can be seen in the microstructure.



**AISI 316L Austenitic Stainless Steel**  
Magnification: 400X Etching: 10% Oxalic Acid

**Preparation Method:**

**Cutting:** Abrasive Cut-off machine with Metlab RC-35-50 Abrasive wheel

**Mounting:** Mounting Press with Black Epoxy

**Mechanical Preparation:** Metpol-A

Steps	Surface	Abrasive	Lubricant	Force per Sample, (N)/(PSI)	Time min.	Disc Speed, rpm	Relative Rotation
1	S/C Paper Disc	180 Grit	Water	25/5	2 min. or until plane	300	Contra
2	S/C Paper Disc	400 Grit	Water	25/5	2	300	Contra
3	S/C Paper Disc	800 Grit	Water	25/5	2	300	Contra
4	Plus Cloth	6 $\mu$ Diamond Suspension	Blue Lube	20/4	3	150	Contra
5	Metlab Cloth	1 $\mu$ Diamond Suspension	Blue Lube	20/4	3	150	Contra

**FOR MORE DETAILED INFORMATION PLEASE REFER TO METLAB PRICE LIST**