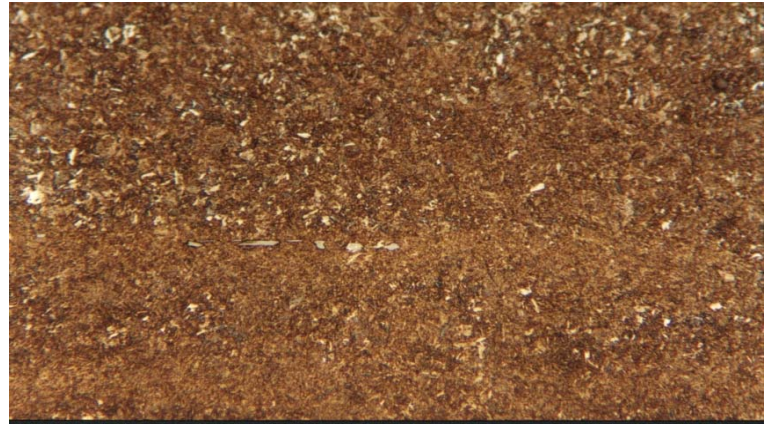


Material : AISI 4140 Low alloy steel

Method No. : A06

Results

Typical tempered martensitic microstructure can be seen in AISI 4140 steel which is commonly used in automotive parts. If inclusion rating will be done, higher wheel speeds and lower mechanical preparation times are recommended.



AISI 4140, Brightfield

Magnification: 180X

Etching: 4% Nital

Preparation Method:

Cutting: Abrasive Cut-off machine with Metlab Diamond Wheel Metal Bonded

Mounting: Mounting Press with Black Epoxy

Mechanical Preparation: FORCIPOL Grinding / Polishing Machine + FORCIMAT Automatic Specimen Mover.

Steps	Surface	Abrasive	Lubricant	Force per Sample, (N)/(PSI)	Time min.	Disc Speed, rpm	Relative Rotation
1	S/C Paper Disc	180 Grit	Water	30/6	2 min. or until plane	300	Contra
2	S/C Paper Disc	400 Grit	Water	25/5	2	250	Contra
3	S/C Paper Disc	800 Grit	Water	25/5	2	250	Contra
4	Dia-Plus Cloth	6 μ Diamond Suspension	Blue Lube	20/4	3	150	Contra
5	Metlab Cloth	1 μ Diamond Suspension	Blue Lube	15/3	4	150	Contra

FOR MORE DETAILED INFORMATION PLEASE REFER TO METLAB PRICE LIST