

Material : AISI 4340 Low alloy steel

Method No. : A07

Results

This widely used low alloy steel is usually quenched and tempered. Microstructure consists of fine carbide particles in tempered martensitic matrix. Below given preparation method results is scratch free surface. A bit overetching helps the carbides to be seen.



AISI 4340 Low alloy steel, Brightfield
Magnification: 800X Etching: 4% Nital

Preparation Method:

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

Mounting: Mounting Press with Diallyl Phthalate

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	PIANO	YELLOW	Water	25/5	1	250	Contra
2	PIANO	BLUE	Water	25/5	1	300	Contra
3	Dac Cloth	3 μ Diamond Suspension	Blue Lube	15/3	4	150	Contra
4	Metlab Cloth	1 μ Diamond Suspension	Blue Lube	15/3	1	150	Contra

FOR MORE DETAILED INFORMATION PLEASE REFER TO METLAB PRICE LIST