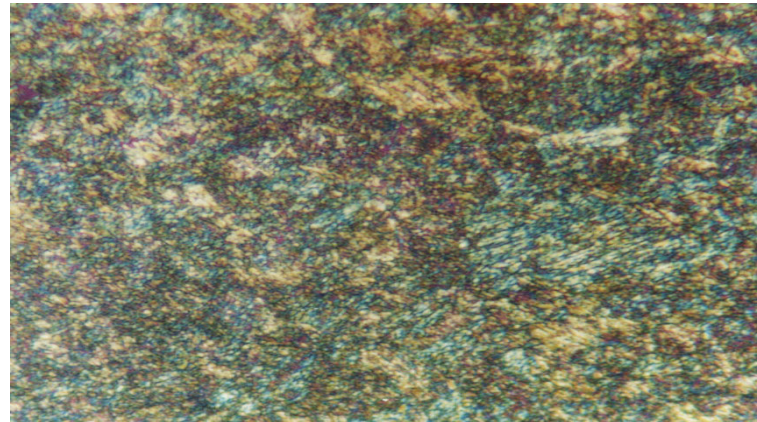


**Material** : 50 CrV4 Low alloy steel

**Method No.** : A05

## Results

The existence of alloy carbides is due to 1.1% chromium. Very thin carbide particles can be seen in the tempered martensitic matrix in the microstructure. Below given preparation method gives very good scratchfree surface.



**50CrV4**

Magnification: 300X

Etching: 3% Nital

## Preparation Method:

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

**Mounting:** Mounting Press with Blue 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	S/C Paper Disc	180 Grit	Water	30/6	2 min. or until plane	300	Contra
2	S/C Paper Disc	400 Grit	Water	30/6	2	300	Contra
3	S/C Paper Disc	800 Grit	Water	30/6	2	300	Contra
4	Plus Cloth	6 $\mu$ Diamond Suspension	Blue Lube	25/5	3	200	Contra
5	Metlab Cloth	1 $\mu$ Diamond Suspension	Blue Lube	20/4	4	150	Contra

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