

**Material** : Gray Cast Iron

**Method No.** : B01

**Results**

The graphite flakes are uniformly distributed in the pearlitic matrix (A type graphite). Overetching should be avoided in order to prevent graphite pull-outs.

The below given preparation method gives perfect results.



**Gray Cast Iron, Brightfield**  
Magnification: 550X Etching: 2% Nital

**Preparation Method:**

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

**Mounting:** Mounting Press with Phenolic Powder

**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	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	S/C Paper Disc	1200 Grit	Water	20/4	2	250	Contra
5	Velap Cloth	1 $\mu$ Alumina Suspension	Water	15/3	4	150	Contra

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