

SEM – EDAX

Sample Requirement :-

1. Solid Sample - 2 gms.



Applications :-

1. SEM used for Particle Shape and Size of Solid Powder Samples & SEM - EDAX for detection of Metallic Element of Sample and ligand sample.
2. SEM-EDAX is used for finding Metallic Composition of Alloys, Glass, Ceramic Samples etc.



DR. KETAN MERCHANT [MSc., Ph.D. ICT]

 saslab21@gmail.com

info@saslabindia.com



www.saslabindia.com



+91 8850413449
+91 022 2500 0386
+91 022 2500 0186
+91 022 4215 0502



SHRADDHA

ANALYTICAL SERVICES

305, 3rd Flr., Jhalawar Bldg., Patanwala Compound, Opp. Shreyas Talkies,
L.B.S.Marg, Ghatkopar (W), Mumbai - 400 086.

Tel. : 2500 0386 / 4215 0502 / 6950 3401
Mobile : 98212 91797 / 98210 75247 / 88504 13449

Website : www.saslabindia.com
Email : saslab21@gmail.com
: info@saslabindia.com

Test for: Spring Failure Analysis

Specimen Mark:

The spring's broken surface is analyzed under scanning electron microscopy (SEM) and compositional characterization is done with Energy Dispersive X-ray (EDX).

The analysis of the broken surface under SEM observed the following:

1. The breaking appeared to be ductile fracture failure type from cup and cone appearance. (Fig 1.1)
2. Failure occurs in the axial shear mode resulting in separating.

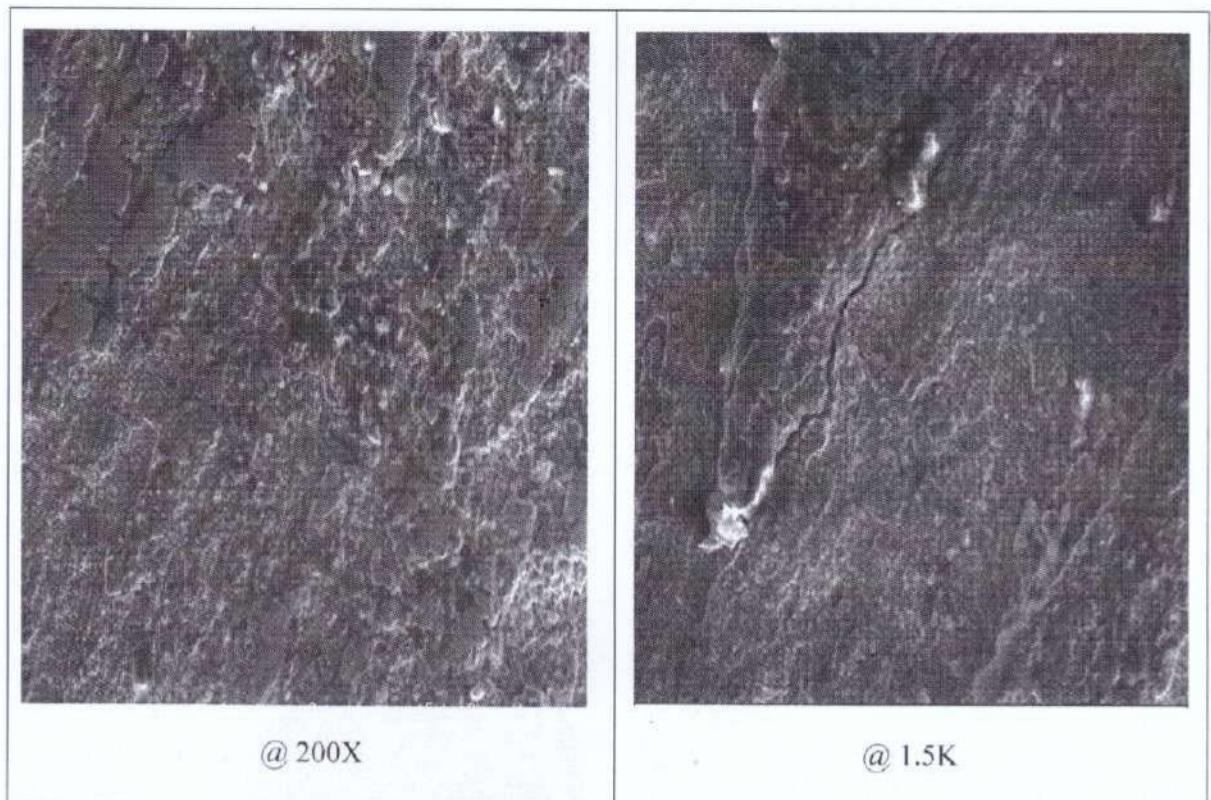


Fig 1.1 Break surface microscopic images



SHRADDHA

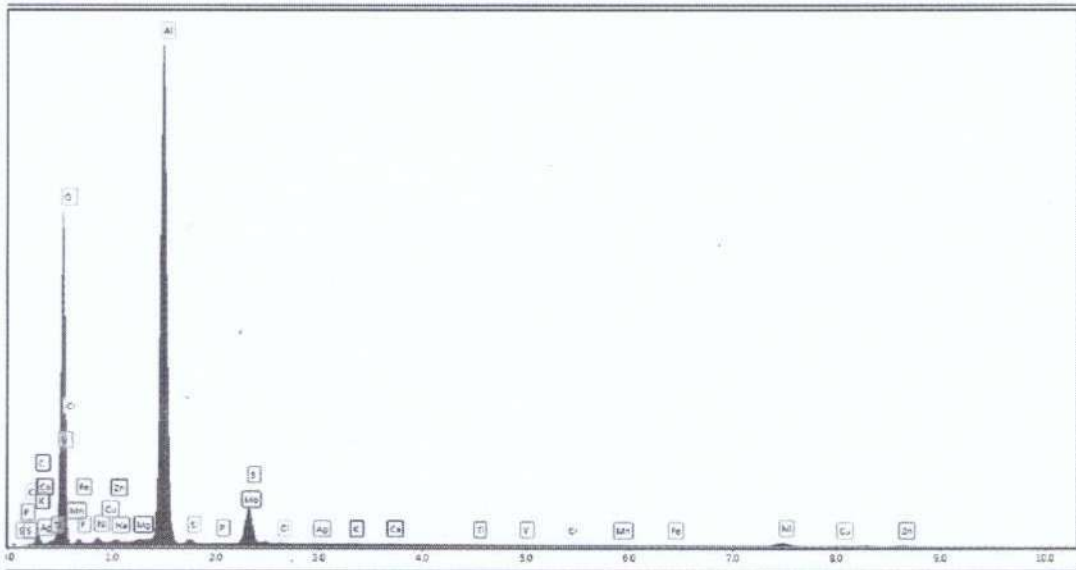
ANALYTICAL SERVICES

305, 3rd Flr., Jhalawar Bldg., Patanwala Compound, Opp. Shreyas Talkies,
L.B.S.Marg, Ghatkopar (W), Mumbai - 400 086.

Tel. : 2500 0386 / 4215 0502 / 6950 3401
Mobile : 98212 91797 / 98210 75247 / 88504 13449

Website : www.saslabindia.com
Email : saslab21@gmail.com
: info@saslabindia.com

EDX analysis on the failure surface is done to find any foreign impurities, results indicate the no high concentration of the foreign any impurities at high level. A correct correlation can be done after getting the exact the metallurgical composition from the supplier.



Element	O K	Al K	Fe K	Ca K	Mn K	S K	Si K	Zn K
Wt%	8.3	89.1	0.37	0.75	0.67	0.43	0.15	0.39