

## PROCESSED MICA

Muscovite Mica ore coming out of mines are in crude form contaminated with various foreign materials; hence for commercial purposes it is processed and classified in different forms on the basis of Size, Thickness and Quality as follows:



The standard grading system for all full-trimmed muscovite mica is based on the minimum usable rectangle (usable area) that may be cut from the specimen. The grade designations for muscovite mica block, film and splitting and the corresponding areas of the usable rectangle with minimum dimension of one side shall be as given in Table below. All mica block, film and splitting shall contain a fair production of sizes throughout the entire range of the specified grade.

Size Grading GRADE	Area Of Usable Rectangle CM <sup>2</sup>	
	From (Including)	To (Excluding)
OOEE SPECIAL	> 645	
OEE SPECIAL	516	645
EE SPECIAL	387	516
E SPECIAL	310	387
SPECIAL	232	310
1	155	232
2	97	155
3	64	97
4	39	64
5	19.4	39
5.5	14.5	19.4
6	6.4	14.5
7	4.8	6.4

# MICA SCRAP

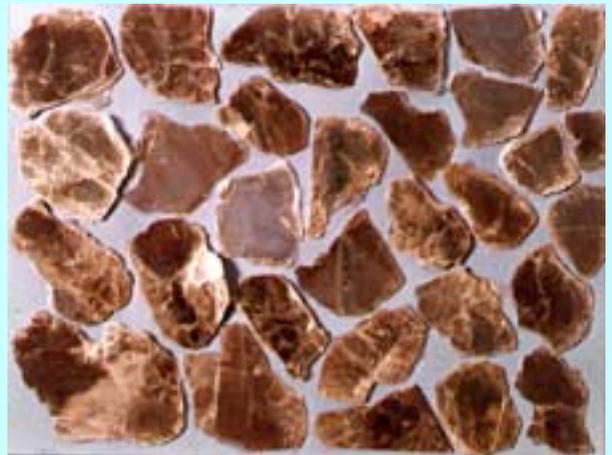
## **MINES SCRAP**

Scrap mica obtained in course of Cobbing, rifting and dressing crude mica as extracted from the mine, by means of a sickle, as well as, recovered by means of hammer-crushing cross-grained mica, which cannot be used as sheet mica for commercial purposes, is classified as mine scrap. It is screened as per customer's specifications for required sieve openings and supplied. Mine scrap is clean, dry, hard, and free from mineral and non-mineral impurities. It is a by-product of mining.



## **FACTORY SCRAP**

Factory scrap is obtained as by product of trimming, and fabricating sheet mica. Mica cuttings obtained in course of trimming and dressing sheet mica in the factory by sharp knife, as well as recovered during cutting and stamping sheet mica into pieces of definite size and shape by sear and punch is classified as factory scrap or cuttings.



Superior quality mica scrap is used for reproducing Mica Paper & High Quality Mica Flakes while inferior grade is used for grinding purpose to produce Mica Powder & Flake.

## MICA BLOCK

Knife dressed sheet mica of a minimum thickness of 0.18 mm (0.007 Inch), is called Block mica and of thickness between 0.05 up to 0.18 mm (0.007 to 0.030 Inch), is called thin mica. They are available both in random and calibrated thickness as per requirement.



The classification of muscovite mica blocks are as given below:-

**V-1 & 2 Ruby Clear and Good Stained:** - Hard, of uniform color, free from all vegetable and mineral stains, cracks, buckles and other similar defects and foreign inclusions. Very slightly wavy, and may contain slight air-inclusions.

**V-3 & 4 Ruby AQ and Stained First:-** Hard, free from cracks and other similar defects and foreign inclusions, expect that may be wavy with slight buckles and may contain medium vegetable stains which are usually brown diffused stains, mineral stains and air-inclusions.

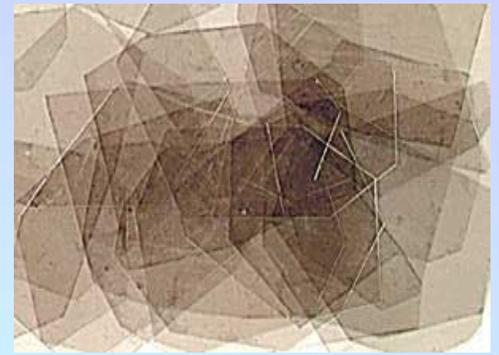
**V-5 Ruby BQ and Stained "B":-** Hard, free from cracks and other similar defects and foreign inclusions, expect that may be wavy and slightly buckled and may contain heavy air-inclusions, heavy vegetable stains and medium mineral stains and black dots and may contain diffused brown stains and clay.

**V-6 Ruby Heavy Stained:-** May be softer than better qualities but free from foreign inclusions and other similar defects, may contain marginal cracks, may be wavy and buckled, may contain heavy air-inclusions, heavy vegetable stains, medium mineral stains and black dots.

**V-7 & 8 Spotted and Densely Stained:** - Hard, free from cracks and other similar defects and foreign inclusions, expect that may be medium wavy and may contain slight buckles and vegetable stains, black and tiny red spotted mineral stain and heavy air-inclusions.

## MICA FILM

Scissor dressed sheet mica split from superior quality block mica to required range of thickness between 0.2 up to 0.18 mm (0.0008 up to 0.007 Inch) is called Mica Film. Mica Film is used as a dielectric in capacitors and other electronic products.



Precisely calibrated thickness, clean cut edges without fraying or splitting, flawlessness and free from stains, spots, dots, impurities, cracks, buckles, pinholes, etc. are some of the essential points observed in the manufacture of film mica.

Scratch less Laminae and or without scales are processed for critical applications on request.

Visual quality classification of muscovite mica films shall fall with the following categories:

**First Quality:** - Hard, of uniform color, free from vegetable and mineral stains and foreign inclusions. Free from cracks, buckles and other similar defects. May be slightly wavy and any contain slight air-inclusions in not more than 1/3rd of the usable area. Crystallographic discoloration is permitted to a limited extent.

**Second Quality:** - Hard, free from cracks, mineral stains and other similar defects and foreign inclusions. May be medium wavy with slight buckles and may contain slight vegetable dots. May have air-inclusions, but not heavily concentrated in not more than 3/4th of the usable area. Crystallographic discoloration is permitted to a limited extent.

**Third Quality:** - Free from cracks and other similar defects and foreign inclusions expect that may be wavy with slight buckles and may contain medium vegetable stains which are usually brown diffused stains and the entire area may have air-inclusions if not heavily concentrated. Crystallographic discoloration is permitted.

## MICA SPLITTING

Laminae split from inferior quality Mica Blocks, in thickness of ten sheets, of which taken together does not exceed 0.30 mm (0.012 Inch), is called splitting mica. Splitting mica chiefly used in the manufacture of built-up mica or Micanite products as raw material for ultimate use as an Insulating material.



**Book Form Splitting** is Mica Splitting arranged and supplied in the form of individual books, each book comprising of consecutive Splitting obtained from the same piece of block or thin mica is known as Book-form splitting. Book-form splitting is dusted with pure mica powder to offset residual cohesive forces.

**Dusted Loose Splitting** is Mica laminae of heterogeneous shapes, not arranged in any regular order but packed loosely in bulk form dusted with pure mica powder to offset residual cohesive forces, is called dusted loose Splitting.

**Loose Splitting** is Mica laminae of heterogeneous shapes, not arranged in any regular order but packed loosely in bulk form packed without Mica Powder, is called dusted loose Splitting.

**Wrapper Mica** is Laminae split in very thin and particular specified thickness from blocks and thins and furnished as book- form. Splitting arranged and supplied in the form of individual books or bunches, each book comprising consecutive Splitting obtained from the same piece of block mica or thins. Wrapper mica are split to less than 3/4 mil and packed without dusting.