



8. The extracted packing components and the filter paper containing the graphite are placed in a 110°C oven and dried for 1 h (graphite is to be used for graphite analysis).
9. After cooling the above to room temperature in a desiccator, weigh each component and the filter paper containing the graphite.
10. Calculate the percent of each component using the original weight as a bases. The lubricant is calculated by difference.

5.3 ASBESTOS DETERMINATION (ASTM D 1918)

To determine the percent of asbestos and percent of organic matter in the outer jacket, the following procedure is used.

1. The extracted outer jacket from 5.2 is placed in a clean, weighed crucible and a burnout is performed in a 799-838°C muffle furnace for 1 h.
2. The ash is cooled to room temperature in a desiccator and weighed.
3. The original weight of asbestos is calculated using the following formulas.

$$4. \frac{\text{Ash Wt.} \times 0.86}{\text{Original Wt. of Asbestos}} = \text{Original Wt. of Asbestos}$$

$$5. \frac{\text{Orig. Wt. of Asbestos}}{\text{Orig. Wt. of Jacket}} \times 100 = \% \text{ Asbestos}$$

$$6. 100 - \% \text{ Asbestos} = \% \text{ Organic Matter}$$

0.86 is a factor based upon a measured average loss of 14% water of crystallization when chrysotile asbestos is heated to a temperature of 799-838°C.

7. The total breakdown is calculated by using the original weight of the package.

Organic Fiber Content = Wt. of core plus inner jacket, plus organic matter in outer jacket.

Asbestos Fiber Content = Original Wt. of asbestos in the yarn of outer jacket.

5.4 DEFINITIONS

Refer to ASTM D 123 for all term definitions in reference to packing fabrics.

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