

KES

Analysis of Carbon Black in SBR

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1. Scope of Application

This standard shall specify a quantitative analysis method of carbon black in SBR (Styrene Butadiene Rubber).

2. Pyrolysis Method of Atmospheric Pressure

2.1 Apparatus

- (1) Dry oven
- (2) Chinaware crucible
- (3) Weight measuring method
- (4) Fused Alumina Combustion Boats
- (5) Combustion Tubes
- (6) Combustion electric furnace

2.2 Preparation of specimen

Pass 200gr of combined specimen 5 times through a roll of a mill in a laboratory.

At this time, conditions for temperature of the mill shall be at $50 \pm 5^{\circ}\text{C}$ and a gap of the roll be $0.5 \pm 0.13\text{mm}$.

Dry 2gr of the passed specimen in the dry oven kept at $100 \pm 5^{\circ}\text{C}$ for 1 hour.

After cooling in the desiccator, measure the weight of the specimen.

For the products, omit the passing operation.

2.3 Operation

- (1) Put 0.3 ~ 0.5gr of the specimen into each of 3 chinaware crucible, which weight is already known, and put 0.3 ~ 0.5gr of standard SBR Black into 3 crucibles.

Since the specimen and the carbon black has absorptive property, put into the weighing bottle, and measure the weight.

- (2) Put the specimen into the fused Alumina combustion boats or boat, pass the CO_2 gas in the combustion tube without oxygen is passed through with speed of