EFFICIENCY & ACCURACY IN TEST

CARBON BLACK ISO 6964-19

Complete system for determination of carbon black content in olefin materials like polyethylene or polypropylene that do not contain non-volatile additives or fillers. The system consists of a tube furnace with a temperature of max. 1200° Celsius

TEST PROCEDURE

ISO 6964-19

- **Preheat** electric tube furnace to 550 ± 50 °C
- **Place silica sample boa**t with test portion at furnace inlet
- **Connect nitroge**n supply (purified if needed) and flow at 200 ± 20 cm^3/min for 5 min
- **Move sample** to furnace center; reduce nitrogen flow to 100 ± 10 cm^3/min
- **Allow pyrolysis** for ~45 minutes
- **Return sample** to cool zone; maintain nitrogen flow for 10 minutes
- **Remove**, cool in desiccator, and weigh → record as m_2 (±0.1 mg)
- **Heat sample** at 900 ± 25 °C until carbon residue is removed
- **Cool** in desiccator and reweigh → record as m_3 (±0.1 mg)

Visit sciteq.com for more info about the test standards and testing methods. Contact sales@sciteq.com for more info and enquiries

EFFICIENCY & ACCURACY IN TEST

TUBE FURNACE

The tube furnace is used for the pyrolysis heating to ~900 °C (nitrogen) for the polymer to decompose, followed by the combustion (oxidation) burning off carbon black, leaving the remaining material in the form of ash.

The tube furnace includes ceramic working tube where the glass tube incl. plugs are placed for operation under air. The furnace is operated via user-friendly touch-controller.

Specifications	Tube Furnace Item no. 8004101/8004121
Max. temperature	1200°C
Outer tube Ø	50 mm
Heated length	250 mm
Tube length	450 mm
Outer dimensions	W:434 x D340 x H508 mm excl. tube Weight 22 kg.
Consumption	1.9 kW
Electrical connection	120V or 220-240V, 50/60Hz, 1-phase,

EFFICIENCY & ACCURACY IN TEST

ACCESSORIES

The Carbon Black Testing System for ISO 6964-19 is supplied with specially designed glassware for nitrogen purification (up to 99.998% purity) and gas washing, ensuring optimal test conditions and reliable results.

Combined with a precision flow meter and all required accessories, the system provides a complete, ready-to-use solution for performing accurate and standards-compliant carbon black determinations.

FOR ISO 6964-19

- Flow Meter 20-250 mln/min.
- Glass for cleaning Nitrogen (nitrogen purity must be 99.998%)
- Combustion porcelain boats
- Nitrogen Regulator
- Gas washing bottles (required unless laboratory is equipped with adequate exhaust ventilation.)

SMART TESTING. PROVEN EXCELLENCE

Note: Weighing balance is optional (item 8010106).