

ASPHALT OXIDIZING REACTOR

- Asphalt Oxidation for Roofing Materials
- Small Compact Size
- Operating Range to 300°C
- Motor Driven Agitator
- Efficient Air Sparger

Model 90 asphalt oxidizing reactor is designed expressly for the study of oxidation of asphalt at elevated temperatures for the manufacture of roofing materials.

Model 90 is an all stainless steel, approximately 4 inch internal diameter by approximately 18 inch tall, electrically heated reactor with a mixer, an efficient air sparger for maximum gas dispersion, and a bottom drain valve.

The reactor cover has provisions for venting the off-gases and for reactor loading. The sparger, thermocouple and mixer are removable from the reactor cover to facilitate cleaning. The bottom drain has a special ball valve trapping a minimum volume of reactants, allowing the full reactor charge to be efficiently mixed. The reactants are agitated by twin turbine mixers operated by a controllable variable speed motor. The electrically heated and insulated stainless reactor may be lifted from the stand for easier cleaning.



▲ Model 90

The reactants' temperature is controlled by a digital indicating, PID temperature controller. The operating temperature is up to 300°C. A temperature limit control is provided, preventing over heating. The airflow is controlled by a precision needle valve and measured by a rotary flowmeter capable of from 0 to 10 liters per minute of air. An air pressure regulator is also provided.

FOAMING TENDENCY of ENGINE COOLANTS

- Conforms to ASTM D1881
- Operates at 88°C with $\pm 0.5^\circ\text{C}$ Stability

Model 98-1 and **Model 98-2** (one and two test positions, respectively) meet the requirements ASTM D1881 Foaming Tendency of Engine Coolants test method.

The 12 inch diameter borosilicate glass jar is temperature controlled at 88°C with a stability and uniformity of $\pm 0.5^\circ\text{C}$. The temperature controller has an over temperature protection in the event of primary controller failure. A ball in tube flow meter with a precision control valve is provided for each test position. The air flow rate is controlled at 1000 ± 25 mL/min.

For Method:

ASTM D1881



▲ Model 98-1