Glass Gob Temperature
Production of Bottles and Glass Containers

How can you control the glass gob temperature for the production of bottles and glass containers?

**Situation Analysis**

From the furnace, the molten glass flows into one or more forehearths and is cut by a shearing blade to form a cylinder of glass called a gob. The gob is dropped into moulds where initial forming is done. When the gob is forced out of the opening, it must have the proper viscosity which is strongly dependent on the glass temperature.

- Gob temperatures: 1050 to 1200°C (1922 to 2192°F)

**Monitoring of the Glass Gob Temperature**

![Diagram of Glass Gob Temperature Monitoring](image-url)
Solution and Improvements

Raytek’s Marathon series FR1 fiber-optic pyrometer is the perfect match for temperature monitoring of the gob. This two color sensor is ideal for this application because it can actually measure the inside temperature of the gob. Furthermore, the temperature readings are not affected by the gob size and oil polluted environments.

The FR1 pyrometer has a very short response time of 10 ms and is fast enough to monitor the falling gob.

The FR1 fiber-optic pyrometer with its small optical head and flexible cable is the best choice for hard-to-reach locations and can be used without cooling in an ambient environment up to 315°C (600°F).

Raytek Product

- FR1 Fiber-Optic Pyrometer

Accessories

- Air Purge
- Optional: Cooling Platform for Electronics Housing

Benefits

- Viscosity-Control
- Avoids Glass Breakage
- High Production Quality