

Manufacturing

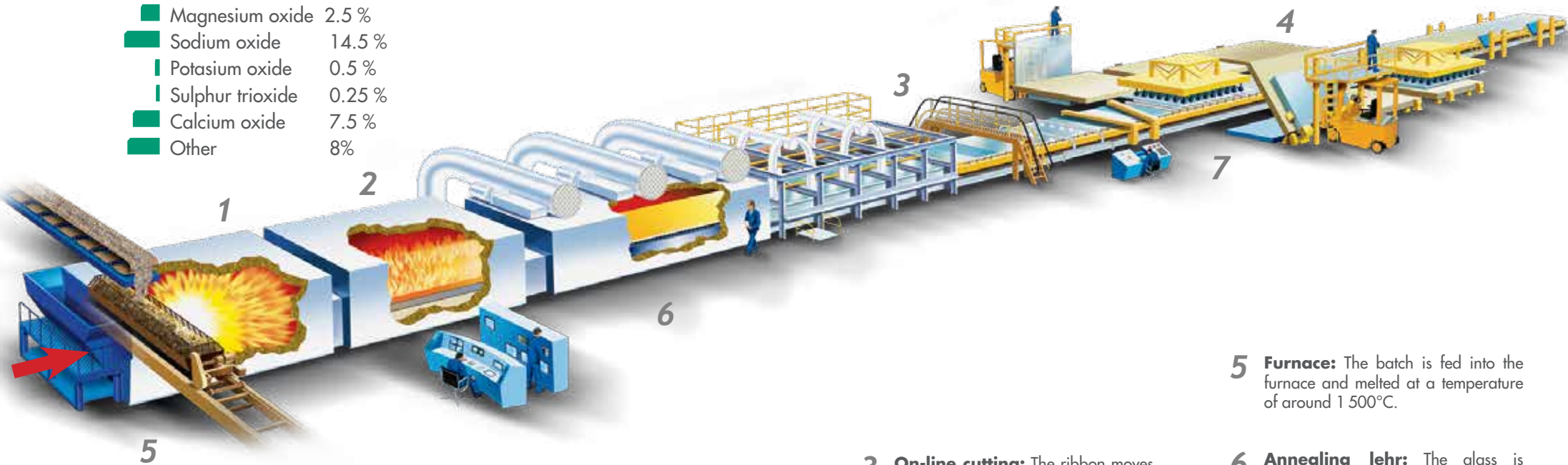
PFG'S FLOAT GLASS MANUFACTURING PROCESS



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Chemical Composition of Glass:

Silica	72%
Iron oxide	0.75 %
Alumina	0.75 %
Magnesium oxide	2.5 %
Sodium oxide	14.5 %
Potassium oxide	0.5 %
Sulphur trioxide	0.25 %
Calcium oxide	7.5 %
Other	8%



1 Raw material feed: Silica sand, soda ash, dolomite, limestone, sodium sulphate and cullet are mixed together to form the raw material batch.

2 Float bath: A continuous ribbon of molten glass floats along the surface of molten tin. All irregularities are melted out of the ribbon, to give the glass a flat, parallel surface.

3 On-line cutting: The ribbon moves to the 'cold end' of the line where it is washed and automatically cut, as it travels along the rollers.

4 Distribution: The glass is distributed throughout South Africa and exported into regional and overseas markets. PFG's distribution hubs are in Springs, Durban and Cape Town.

5 Furnace: The batch is fed into the furnace and melted at a temperature of around 1 500°C.

6 Annealing Lehr: The glass is annealed and gradually cooled to around 200°C, to relieve stresses in the glass and prevent splitting and breaking in the cutting phase.

7 Stacking and offloading: Automatic stackers offload the glass sheets. The glass is then warehoused for distribution.