

Manufacture of Thermal Black

Medium thermal carbon black is produced in a semi-continuous process using two refractory-lined reactors (a unit) that are filled with a lattice work of refractory bricks (see diagram below). The two reactors alternate between carbon black production and reheating.

During the production cycle, pre-heated natural gas feedstock is decomposed at approximately 1400 C in the absence of air or flame to produce carbon black and hydrogen. The product stream is cooled to about 125°C and the carbon black is separated from the hydrogen in bag filters. The carbon black is then further processed before packaging. The hydrogen is used as fuel to reheat the other reactor in the unit.

Process Flow Diagram

