



Pyrotek Treated Graphite Compared to Competitor Graphite

PROCESS

Aluminium in-line degassing

PYROTEK PRODUCT

Pyrotek graphite products for aluminium in-line degassing, such as shafts and rotors, last longer than other graphite components on the market. Untreated graphite oxidizes and breaks quickly and easily. In static applications, regular treated graphite parts last up to five times longer. Components treated with Pyrotek's proprietary process, however, last 10 times longer.

Pyrotek offers two grades of treated graphite: SST and ZX.

TEST PROCEDURE

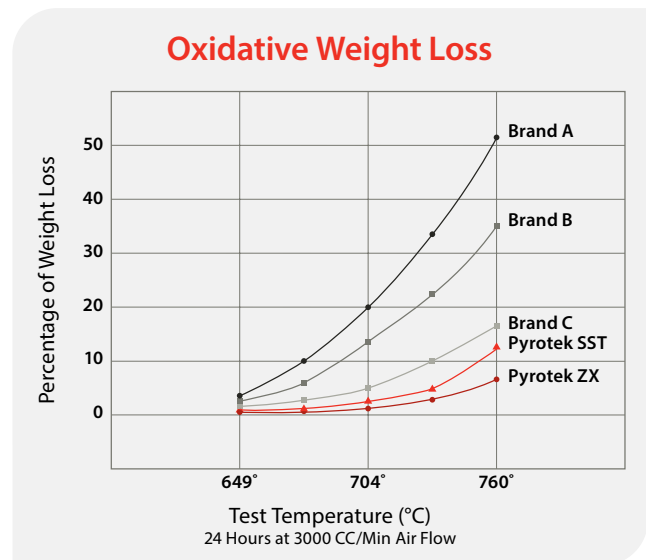
Figures were obtained in an accelerated lab test. Pyrotek used consistent procedures and controlled equipment to ensure results that accurately indicated relative performance under real-life conditions.

The tests were conducted for 24 hours at 760°C (1400°F) in a purged-air atmosphere. Air is fed via mass flow controllers capable of maintaining 3000 ± 3 cubic centimetres per minute. Test furnaces were controlled to ± 1°C (1.8°F). Standard sample shapes and sizes were maintained to eliminate surface area contributions to weight-loss results.

RESULTS

The Oxidative Weight Loss graph compares weight loss (oxidation) among the two Pyrotek grades and treated graphite from three competitors. A lower weight loss percentage corresponds to better performance and to longer lasting graphite during degassing processes or applications.

The results showed that Pyrotek treated graphite's weight loss was less than 8 percent, while the competitor graphite ranged between 17 percent and 52 percent weight loss.



Test Samples of Treated Flux Tubes

Length: 7.62 centimetres. Diameter: 5.08 centimetres. Internal Diameter: 1.27 centimetres.



Pyrotek ZX



Brand C



Brand B



Brand A

