

Under Developing to Non-Carbon Fiber Composite Sheet applicable to Continuous Use
Temperature 320°C with TEV

신원호, 김성기[†]

제일E&S

(skk@jeilens.co.kr[†])

Gaskets are used to fill the gap between two irregular surfaces such as to prevent leakage of fluid. It can be defined as a static seal and consists of various shapes and materials depending on their applicable condition by the type of fluid, pressure, temperature etc. Sealability and thermal resistance to fluid are the most important performance at gaskets and recent market demands also increasing to high temperature with pressurized gasket. In case of the compressed joint sheets, which currently required high thermal resistance, carbon fiber and graphite material may using to improvement at thermal resistance characteristics because the complex consisting of organic binders and ceramics has limited performance. However, carbon fiber has the disadvantage of having a high unit price, and graphite has limited processability, handing, rigidity and flexibility. In this study, we overcome the shortcomings of conventional carbon fiber or graphite-filled compression sheets by improving the thermal resistance of conventional non-asbestos compression joint sheets by utilizing expanded vermiculite with excellent heat resistance properties manufactured by expanding mineral nitrogen by gas.