CASE STUDY

Bio-fuels

End-User Description

One of North America's largest renewable fuel facilities, located in Southern Ontario, Canada. They are committed to producing clean, sustainable fuel and contributing to national greenhouse gas reduction targets. They produce roughly 170 million litres (45 million gallons) of renewable fuel per year, suitable for cold climate applications.

The Challenge

Some key issues occurring inside the facility were gasket material chemically breaking down and media seeping through a Teflon®-lined piping system. This caused major safety hazards, unwanted downtime and required ongoing maintenance until the gaskets could be replaced. The natural oils found in Methyl esters caused materials to break down and Free Fatty Acid reacts corrosively when in contact with petroleum-based rubbers. Unfortunately, these rubbers are often found in gasket materials made with NBR, SBR and neoprene.

The Solution

The end-user purchased Durlon® 9000 at a local distributor, as it is a glass-filled PTFE gasket made with Teflon® polymers, and is a high performer in aggressive chemical applications. In addition, the shape of the fillers do not allow wicking which can cause corrosion on flange surfaces.

The Benefits

Durlon® 9000 held up where other materials had failed and helped resolve several leaking issues throughout the systems due to chemical disintegration of gasket material. The plant has now replaced 100% of its gaskets with Durlon® 9000, significantly increasing plant health & safety and decreasing the amount of downtime spent completing non-routine maintenance.

Durlon® 9000

Durlon® Products Used
Durlon® 9000, 1/8" cut gaskets

End-User Industry
Bio-fuels

Media
Raw Glycerin, Free Fatty Acid, Methyl Ester

Pressure
Various applications ranging from 20-80 psi (1.4 – 5.5 bar)

Temperature
Various applications ranging from 20oC-100oC (60oF-212oF)

Other Information:
Various applications with a pH range of 1.5 to 7

DURLON® SEALING SOLUTIONS