

Problem

The customer was using highly lubricated, virgin PTFE based packing that was only providing a short service life due to its inability to withstand abrasive media. This in turn was heavily impacting the total cost of maintenance. In addition, it was discovered that the lubrication contained within the packing had contaminated chocolate batches during the conching operation.

High maintenance costs and product contamination

Application

Conch (mixer) processing chocolate (conching process).

- Media: chocolate
- Temperature: 30°C (86°F)
- Low pressure and shaft speed (not critical for the packing)
- Additional requirements/approvals: FDA, EU1935/2004, EU10/2011

Existing solution

Highly lubricated, waxy, virgin white PTFE packing

James Walker solution

After an analysis of the operation, Lionpak[®] 2102 was recommended to the customer. A high performance ePTFE based packing, Lionpak 2102 offers improved mechanical strength over alternative virgin PTFE.

A clean and hygienic dry packing for applications where any form of contamination or unauthorized substance migration is a concern, it also complies with FDA 21 CFR 170.39 and EC regulation 1935/2004.



Results and benefits

The use of Lionpak[®] 2102 in the conching process has eliminated the risk of contamination. It has also increased the service life from 2-3 months up to 9-12 months, thus significantly reducing maintenance costs and packing consumption as well as improving the general efficiency of the conching process.

Increased service life



Improved service life



Reduced maintenance cost



Improved operational efficiency of conching process



Reduced risk of chocolate contamination