

## Application Success Stories

### Application:

Bar beverage dispenser.

### Problem:

Customer needed an O-ring that was compatible with water, soft drink syrups, and beer for a multi-beverage dispensing nozzle.

Because the nozzle dispensed drinking water, soft drinks, and alcohol, the customer was faced with a confusing mix of certifications and regulations on the components of their device.

In addition, the FDA materials they had tested to date did not offer good service life due to poor compression set resistance.

### Parker Solution:

Parker recommended EPDM compound E3609-70.

This compound offers certification to NSF 61 (drinking water) and NSF 51 (food & beverages, including alcohol,) and also meets the FDA requirements. It also offers outstanding compression set resistance.

### Outcome:

Compound E3609-70 was exactly what the customer was looking for. The multiple material approvals helped their device speed through approval and the compression set resistance reduced their customers' maintenance time.

## Featured Compound: E3609-70

As regulations on food and beverage applications get tighter and more stringent, one thing stays the same: compound E3609-70 still offers excellent performance and third-party certification for use in almost any food or beverage application.

In the US, NSF 61 (drinking water) and NSF 51 (food / beverage handling) are the most common standards of performance for seal materials used in these types of consumer products. The US Food and Drug Administration (FDA) has developed a set of requirements for these types of applications, but these have gradually evolved into a "starting point" for material performance -- many applications require much more stringent performance.

In Europe, the WRAS (UK) and KTW (Germany) approval processes are more common for drinking water applications.

These standards are spreading across the globe, and many customers require a seal material meet all of the requirements. Compound E3609-70 has been approved to all of these standards.

In addition, compound E3609-70 offers outstanding resistance to compression set relative to other FDA-type materials. For example, one FDA EPDM material was found to take 83% compression set after 70 hours at 257 F (125 C.) E3609-70, on the other hand, took only 29% compression set after 70 hours at 302 F (150 C.) The improvement in service life can't be mathematically calculated, but a difference this large would correspond to a dramatic improvement in service life in application if E3609-70 were used in place of this FDA-type EPDM compound.

For more information on this or any of Parker's 200+ rubber compounds, contact a Territory Sales Manager or Applications Engineer.