Imagine the following scenario... Your company has developed a new dispenser offering dozens of high-quality, intensively flavored drinks, but the dispensed drinks taste strange. How could that happen? Indicators could be the dispenser’s seals. Maybe a cheap material has been bought or the compatibility test was missing. Seals for beverage dispensers have to withstand various media and temperatures. They are often the critical factor when flavor transfer problems occur. We help you ask the right questions.

Leakage due to compatibility problems?
It doesn’t matter soda or slush machines, beer, juice, dairy or water dispensers, Freudenberg-NOK offers highly resistant sealing materials that have a unique longevity. Compatibility tests between the process media and the sealing materials are our daily work. The common media are water, dairy, CO2 and syrup. Special seals are necessary in a dispenser’s cooling area. Freudenberg-NOK offers a low temperature FKM which is suited for direct contact with beverages. Cleaning media are also no problem for our sealing solutions. And if there is no replacement seal, we deliver it mostly directly from our stock.

Flavor transfer?
Today’s consumers ask for healthy, fresh drinks in an assortment of tastes. From flavored juices and sodas to smoothies, there does not seem to be a limit to the possibilities. Time is short, and consumers want to have all of these variants from one machine. The big challenge is to secure that the apple flavored water does not taste like the cherry flavored water that has been filled a minute ago. Choosing the right sealing material is the key. The most critical component for flavor transfer is the dispenser where mostly o-rings are used. The blue, universal material Fluoroprene® XP 41 has been developed especially for such applications and is used in the syrup lines. It is resistant to nearly every flavor even to very demanding ones like citrus, root beer and orange. Several tests have proven that Fluoroprene® XP 41 prevents flavor transfer and does not swell in syrup. A material that tends to swell could influence the amount of syrup being pumped into the carbonated water and so could falsify the taste in the worst case. For the water line and the carbonator Freudenberg NOK’s 70 EPDM 291 and 70 EPDM 335 are the perfect solution.

Certification problems?
Every sealing material used in dispensers has to be compliant to FDA and to EU Regulation 1935/2004. Additionally drinking water certifications like KTW and NSF 61 as well as tests conforming to 3-A® Sanitary Standards are recommended. Freudenberg-NOK offers an international certifications concept for the materials used in the process industry which helps globally active companies to fulfill the legal requirements.

Three questions, one answer: Freudenberg-NOK!
# APPROVED ELASTOMERS

<table>
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<th>ELASTOMERS</th>
<th>APPROVALS/ COMPLIANCE</th>
<th>SEALING SOLUTIONS FOR DISPENSERS</th>
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| 70 EPDM 291 (black)               | • EU Regulation 1935/2004 and 2023/2006  
• 3-A® Sanitary Standards  
• Drinking water (KTW, NSF 61, W270, WRAS, ACS) (valid until December 2016)  
• FDA-compliant  
• NSF 51  
• USP Chapter 87 and USP Chapter 88 - Class VI | • O-rings  
• Precision molded parts  
• Plug seals |
| 70 EPDM 335 (black)               | • EU Regulation 1935/2004 and 2023/2006  
• Drinking water (KTW, W270, WRAS, ACS)  
• FDA-compliant | • O-rings  
• Precision molded parts  
• Plug seals |
| 75 Fluoroprene® XP 41 (blue)      | • EU Regulation 1935/2004 and 2023/2006  
• 3-A® Sanitary Standards  
• FDA-compliant  
• NSF 51  
• USP Chapter 87 and USP Chapter 88 - Class VI | • O-rings  
• Precision molded parts  
• Plug seals |
| 70 FKM 727                        | • EU Regulation 1935/2004 and 2023/2006  
• FDA-compliant  
• NSF 51 | • O-rings  
• Precision molded parts  
• Plug seals |
| VMQ (silicone) APC 0435BR1 (black) | • FDA-compliant | • Low pressure profiles |

For detailed information, please download our “Sealing Technology Manual for the Process Industry”

www.fnst.com