



**AmericanBilrite**  
IndustrialRubber

May 12, 2021.

**Subject: Proof that red styrene butadiene (SBR) rubber sheet is NOT suitable for potable water applications**

This document compares typical Red SBR versus AB-576 NSF/ANSI/CAN Standard 61 Certified EPDM to the AWWA Standard.

AWWA Standard C111/A21.11

This standard defines: Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings - Table 4: Required Properties and Methods of Testing for Mechanical-Joint Gaskets

Low cost red styrene butadiene (SBR) was once the industry standard for full-face gaskets in potable water applications. Although concerns about drinking water safety are at an all-time high, some are still willing to gamble on the most economical solution by using non certified materials in gaskets and seals in drinking water applications.

According to Theresa Bellish, General Manager of Municipal and Recreational Water Product & Chemical for NSF International:  
*There is no evidence of any certified red SBR sheet rubber product in our listings. We can accurately attest that if someone is providing red SBR sheet rubber in rolls using the NSF logo, they are giving false information and should be reported to NSF International's Compliance Department.*



**NSF International does not currently have any certified NSF/ANSI Standard 61 red SBR sheet rubber.**

In addition to NSF International not finding any red SBR sheet rubber viable for certification, lab tests prove that traditional low cost red SBR sheet would not meet AWWA Standard C111/A21.11: *Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings. Table 4: Required Properties and Methods of Testing for Mechanical-Joint Gaskets.*

The following pictures and chart display the results from testing key factors of the standard. We tested our NSF certified EPDM (AB-576) against typical domestic red fabric finish SBR, and also standard imported smooth red SBR.

See pictures of the rubber samples tested. The red SBR sample's integrity has been compromised severely by the lab test protocol in both cases (imported and domestic). The SBR failed the tensile test, the ozone test, and the compression set tests to meet AWWA Standard C111/A21.11 (Table 4).



**FAILURE: AWWA Standard C111/A21.11 (Table 4).**

ASTM D1149 Ozone 25H, 50 pphm @ 40 C = **CRACKS**















**PASS : AWWA Standard C111/A21.11 (Table 4)**

ASTM D1149 Ozone 25H, 50 pphm @ 40 C = **NO CRACKS**





Test Method/ Certifications & Physical Properties	Specifications as per AWWA C.111/A21.11 (Table 4)	American Biltrite's <b>AB-576</b> <b>NSF/ANSI/CAN</b> <b>Standard 61</b> <b>Certified EPDM</b>	Traditional Domestic Fabric Finish Red SBR Sheet	Traditional Imported Smooth Finish Red SBR Sheet
ASTM D412 Tensile (psi)	1500 min	<b>1840</b>  <b>Pass</b>	<b>900</b>  <b>Fail</b>	<b>430</b>  <b>Fail</b>
ASTM D395 Method B Compression Set: 22 hours @ 70 C Max %	20%	<b>16%</b>  <b>Pass</b>	<b>47%</b>  <b>Fail</b>	<b>36%</b>  <b>Fail</b>
ASTM D1149 Ozone Resistance 25 hours @ 50 pphm @ 40 C	No cracks	<b>PASS</b> <b>*See picture</b> 	<b>FAIL</b> <b>*See picture</b> 	<b>FAIL</b> <b>*See picture</b> 
NSF/ANSI/CAN Standard 61 Certified		<b>YES</b> 	<b>NO</b> 	<b>NO</b> 



Count on products certified by NSF International, one of the most trusted marks in water analysis. NSF International is one of the most reputable testing and certification organizations recognized worldwide. Meeting AWWA Standards with a certified product can help you easily fast-track product acceptance and gain recognition in the market for a top quality product. Please do not hesitate to contact us for any further information or assistance.

**Tracey Lancaster**

Marketing Manager

Tel: 819-829-3367 | Fax: 819-821-9254 | Cell: 819-571-1287  
tlancaster@american-biltrite.com

