

## **POLYMER RICH COMPOUNDS**

**POLYMER RICH = QUALITY TO THE HIGHEST DEGREE**  
**POLYMER RICH = PERFORMANCE BEYOND EXPECTATIONS**  
**POLYMER RICH = INTEGRITY BUILT INTO EVERY PART**



*Polymer rich compounds are the reason some compounds perform brilliantly and polymer poor compounds fail in the same service application.*

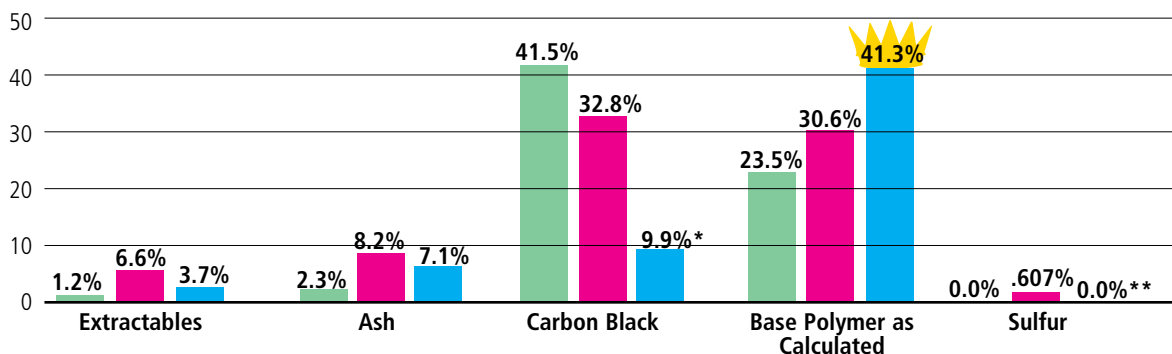
Parts made offshore are notorious for being polymer poor, the reason for their failure and cheap price. As well, when compounds are polymer poor they are loaded with clay and carbon black fillers. This also results in a tremendously high TOC content. This is not to say the polymer poor compounds do not have a place where they can be used. However, sanitary process piping gaskets and "O"-rings for the Dairy, Food, Beverage and Pharmaceutical processing industry is not one of them because of FDA requirements and the harsh service of CIP systems.

# TEST RESULTS COMPARISON BETWEEN PRIMARY COMPETITOR AND NEWMAN SANITARY GASKET COMPANY

Chemical testing on samples of Primary Competitors EPDM gaskets (with 3 green dots) and Newman Sanitary Gasket. Part # 40MP-E 4"

Test Results from ARDL (Akron Rubber Development Laboratory, Inc.) dated 9/2002

Comparison between ■ Primary Competitors and ■ Newman Sanitary Gasket Part No. 40MPF-E with green dots.



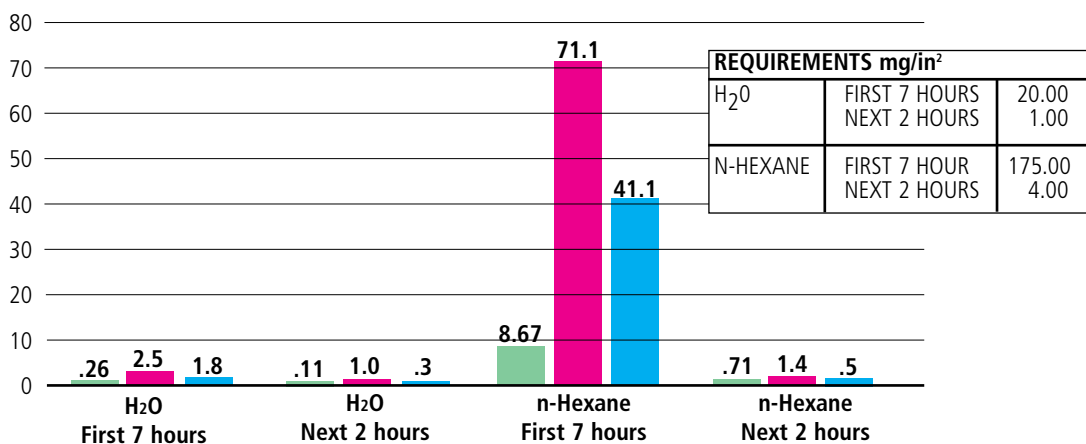
\* 10% total carbon black is the maximum allowable under C.F.R. title 21 Paragraph 177, 2600 section V for use with edible oils and dairy applications.

\*\* Newman's standard compound are totally sulfur free.

FDA Extraction Test Comparison on EPDM Primary Competitors gasket and Newman Sanitary Gasket Part # 40MP-E 1.5"

Test Results from ARDL (Akron Rubber Development Laboratory, Inc.) dated 10/2003 FDA Extraction Test

Comparison between ■ Primary Competitors and ■ Newman Sanitary Gasket



## A word of explanation on the extractable for the green competitor

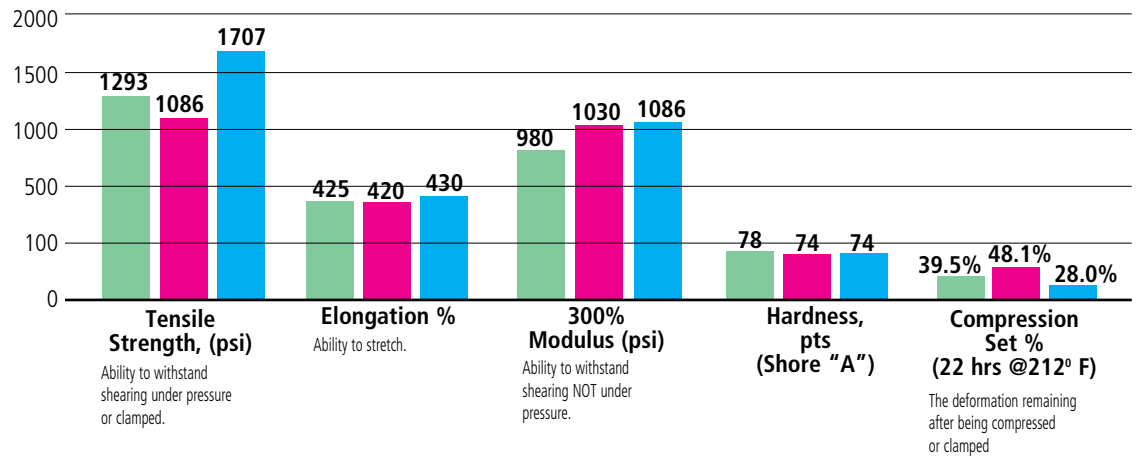
It is illustrated in this bar chart that the green competitor extractables are lower than Newman's. The extractables from elastomers are primarily the plasticizers (oil) that is used in the compound to give the base polymer softness and pliability. Carbon black has natural oil in it that accomplishes the same end result. The green competitor has 41.5% carbon black added to the base polymer reducing the necessity to add the plasticizer. However, in compliance with the Federal Code of Regulations, Title 21 paragraph 177.2600, no more than 10% carbon black is allowable and still meet the standards of FDA for all applications.

**The payoff for Newman's EPDM compound**, not exceeding the greater than 10% carbon black, is illustrated in the bar chart that shows the Total Organic Carbon (TOC). It is very questionable whether a process engineer in a pharmaceutical plant would allow gaskets or any other elastomer parts with a T.O.C. of 82.95 to be used in their processing system.

Comparison of EPDM Physical Properties on Primary Competitors gasket and Newman Sanitary Gasket Part # 40MP-E 1.5"

Test Results from ARDL (Akron Rubber Development Laboratory, Inc.) dated 4/2004

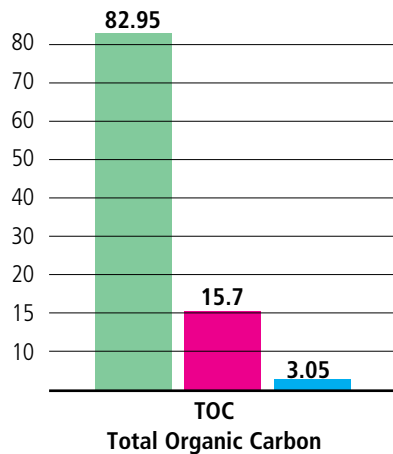
Comparison between Primary Competitors and Newman Sanitary Gasket Part No. 40MP-E 1.5"



Independent Test Comparison on EPDM Primary Competitors gasket and Newman Sanitary Gasket

Test Results from TOXIKON Corporation TOC test (Total Organic Carbon Analysis)

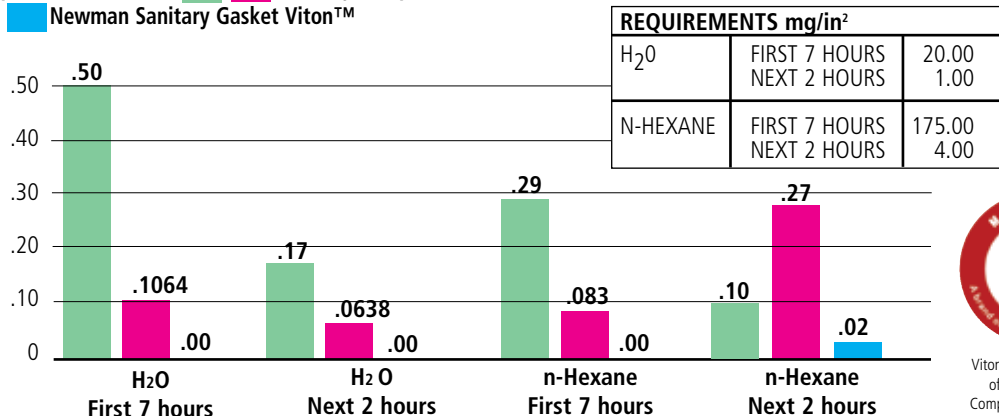
Comparison between Primary Competitors and Newman Sanitary Gasket



FDA Extraction Test Comparison on VITON™ Primary Competitors FKM gasket and Newman Sanitary Gasket's Viton™

Test Results from ARDL (Akron Rubber Development Laboratory, Inc.) dated 3/2007 FDA Extraction Test

Comparison between Primary Competitor, FKM and Newman Sanitary Gasket Viton™



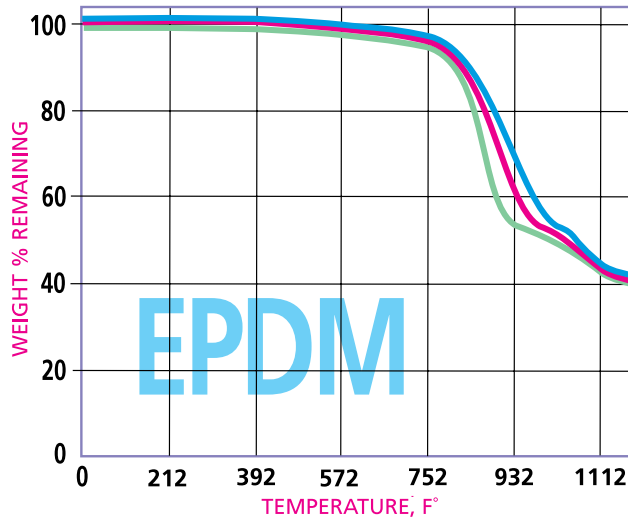
Viton™ is a trademark of The Chemours Company FC, LLC, used under license by NSG.

Actual tests results available upon request.

# TGA COMPARISON TESTS

Newman Sanitary Gasket Company  
Samples 1-3 heated in air from ambient to 1202°F at 77°F/min

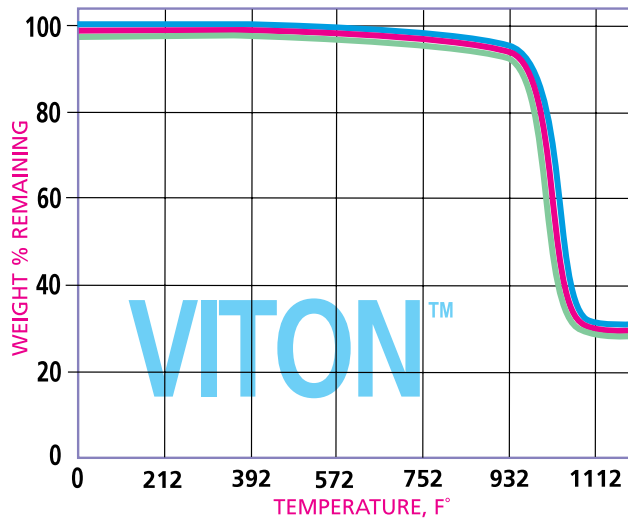
- █ Sample #1
- █ Sample #2
- █ Sample #3



The TGA test is a comparison of the exact like elastomer part from one batch to the next to establish consistence of the part from one batch to another. The consistence of Newman's compounds are so precise from one batch to the next that the test nearly form and overlay. Off- shore compounds can not achieve this level of consistence and when the consistence varies the quality does as well.

Newman Sanitary Gasket Company  
Samples 4-6 heated in air from ambient to 1202°F at 77°F/min

- █ Sample #4
- █ Sample #5
- █ Sample #6

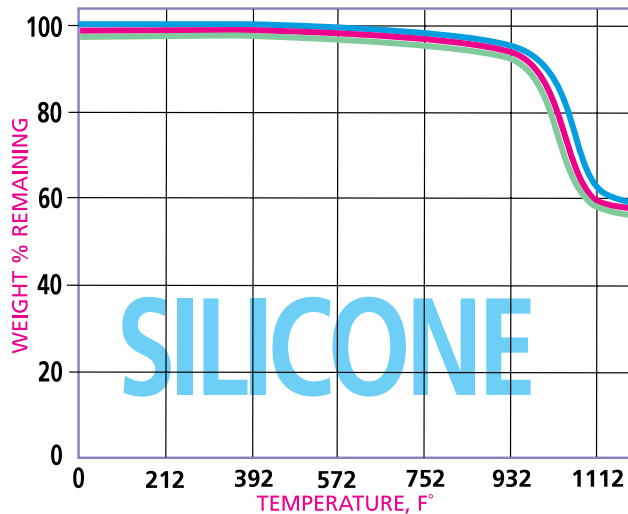


Viton® is a registered trademark of DuPont Performance Elastomers



Newman Sanitary Gasket Company  
Samples 7-9 heated in air from ambient to 1202°F at 77°F/min

- █ Sample #7
- █ Sample #8
- █ Sample #9



*Newman's elastomer compounds are the most Polymer Rich of all FDA & US Pharmacopoeia compliant compounds that exist in the industry today, regardless of the part or the manufacturer.*

**Post Cure:** The second step in the vulcanization (manufacturing) process for high-end elastomer parts. This provides stabilization of the parts and drives off the volatiles and the remaining curing agents resulting from the vulcanization process. As well, the molecules in the part are tightened, making for greater resistance to compression set, greater tensile, and modulus, increasing the performance of the part by as much as 50%, depending on the application.



*It's no wonder that Newman is the leader in sanitary process piping gaskets worldwide!*

# Leadership in the industry.

## Memberships



The Society For  
Life Science Professionals



Distributors Serving  
Sanitary Processing



American Society of  
Mechanical Engineers



American Institute of  
Chemical Engineers

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\*\*\* Is a registered trademark of the American Society of Mechanical Engineers.

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## Partnership

### Performance Elastomers



"A", "GF" & "ETP"

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P.O. Box 222, Lebanon, OH 45036 • Phone; 513-932-7379 • Fax; 513-932-4493

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