



# News Release

For Release: Immediately

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## **Parker Animal-Free EPDM EJ280-70**

LEXINGTON, KY, June 24, 2008 - Parker Hannifin Corporation, the global leader in motion and control technologies, is pleased to introduce a new animal-free epdm designed specifically to address risks associated with animal derived products used in manufacturing processes. Although there has never been a documented case of transmitting Bovine Spongiform Encephalopathy (BSE) (also known as Mad Cow Disease) through an elastomeric seal, there is concern surrounding the possibility. Parker's EJ280-70 is free of animal ingredients, eliminating the risk of BSE transmission from a seal. In addition to being animal-free, EJ280-70 also meets USP Class VI requirements.

To see if this material is right for your application needs or to learn more about this innovative material, please contact our application engineers at 859-335-5101. To order printed copies of Parker's Animal-Free EPDM EJ280-70 bulletin, call Catalog Services at 1-440-205-7799 and reference bulletin ORD 5756.

Parker's O-Ring Division products are at the leading edge of elastomer technology and this new material is no exception. We offer a broad spectrum of materials ranging from the chemically resistant, high temperature Parofluor™ and Parofluor ULTRA™, to a variety of premium elastomeric sealing materials. Whether it is an "off-the-shelf" industrial standard or a material in a custom size developed to customer specifications, our commitment to service is designed to minimize downtime and maximize quality. In addition to O-Rings, Parker's O-Ring Division offers ParBak™ anti-extrusion rings, installation lubricants and O-Ring assembly and removal tools. Our manufacturing plants are ISO 9001, TS 16949 and AS 9100 registered.

With annual sales exceeding \$10 billion, Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of commercial, mobile, industrial and aerospace markets. The company employs more than 57,000 people in 43 countries around the world. Parker has increased its annual dividends paid to shareholders for 52 consecutive years, among the top five longest-running dividend-increase records in the S&P 500 index. For more information, visit the company's web site at <http://www.parker.com> , or its investor information site at <http://www.phstock.com> .

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# EJ280-70

USP Class VI Approved, Animal-Free  
Ethylene Propylene



## Parker Animal Free EPDM:

Parker O-ring products are at the leading edge of elastomer technology, solving industry needs with new, innovative materials. Our seals are used in medical devices, pharmaceutical and bio-tech manufacturing, diagnostic equipment and drug delivery. For this reason, Parker developed EJ280-70, a USP Class VI rated, animal free ethylene propylene designed specifically to address the risks associated with using animal derived products during manufacturing.

Stearates are commonly used in the manufacturing of many elastomers. Most commercially available stearates are derived from beef tallow. Risk of exposure to Bovine Spongiform Encephalopathy (BSE) (also known as Mad Cow Disease) increases with consumption or exposure to contaminated animal products. Although there has never been a documented case of transmitting this disease through an elastomeric seal, there is concern surrounding the possibility. For this reason, EU has several directives that restrict products of animal origin.



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## Advantages:

- Eliminates risk of BSE transmission from seal
- Seal is free of ingredients derived from animal origin
- Eliminates need to monitor changes to process requirements
- Meets USP Class VI requirements

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**EJ280-70 to ASTM D2000 M2CA710 A25 B44 EA14 F17 G11 Z1 (Animal-free) Z2 (USP Class VI rated)**

Original Physical Properties	Test Method	Specification Limits	Test Results
Hardness, Shore A, pts.	ASTM D2240	70±5	70
Tensile Strength, Mpa	ASTM D412	1450	2472
Ultimate Elongation %	ASTM D412	200	246
(G11) Tear Resistance, Die B min. kN/m (psi)	ASTM D624	17 (97)	35(201)
Specific Gravity	ASTM D297	as received	1.14
<b>Compression Set (Plied) 22 hrs. @ 212°F</b>			
Percent of original defection, max.	ASTM D395 Method B	60	7
<b>(B44) Compression Set (Plied) 70 hrs. @ 212°F</b>			
Percent of original deflection, max.	ASTM D395 Method B	70	10
<b>Heat age, (basic requirement) 70 hrs. @ 257°F</b>			
Hardness Change, pts	ASTM D573	±15	+2
Tensile Strength Change, %		±30	+2
Ultimate Elongation Change, %		±50	+11
<b>(A25) Heat age 70 hrs @ 257°F</b>			
Hardness Change, pts	ASTM D865	+10	+2
Tensile Strength Change, %		-20	-12
Ultimate Elongation Change, %		-40	-10
<b>(EA14) Water Resistance 70 hrs. @212°F</b>			
Volume Change, %	ASTM D865	±5	+3
<b>(F17) Low Temperature</b>			
Brittleness 3 min. @ -40°C	ASTM D2137	Pass	Pass

**USP Class VI and ISO 10993-3 Systemic Toxicity Study**

Extract	# Deaths / # Tested	#Deaths / # Tested
Saline	0/5	0/5
Alcohol in Saline	0/5	0/5
Polyethylene glycol 400	0/5	0/5
Sesame Oil	0/5	0/5

**USP Class VI Intracutaneous Study**

Extract	Avg. Test Score	Control Test Score	Difference
Saline	0.0	0.0	0.0
Alcohol in Saline	0.0	0.0	0.0
Polyethylene glycol 400	0.0	0.0	0.0
Sesame Oil	0.7	0.7	0.0

