O-Ring Seals for Automotive Fuel System "Quick Connects"

Application Bulletin

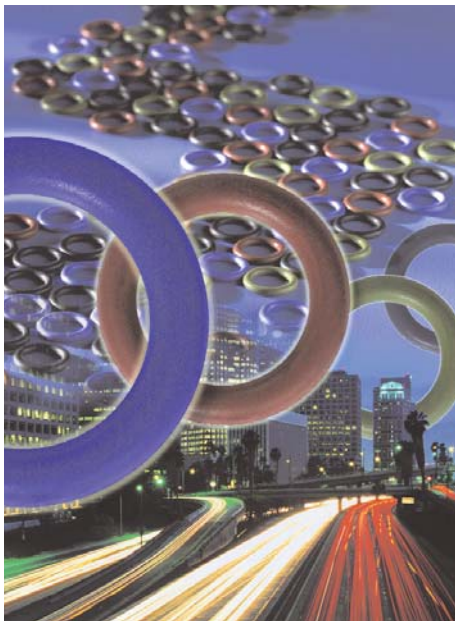
No. 5732

Description

Parker Hannifin manufactures a broad selection of o-rings that are specifically formulated to meet the demanding requirements of fuel "quick connect" applications. These o-rings are available in fluorocarbon, fluorosilicone, and specialty blended formulations. Tooling exists for all standard SAE and metric sizes.

Typical Applications

Parker o-rings for fuel quick connects exhibit excellent resistance to swell and permeation. As a result, they are ideal for use in light vehicle fuel system applications where EPA, PZEV and CARB testing standards apply. Parker's material offerings satisfy a range of requirements for resistance to aggressive ether and alcohol based oxygenates, while simultaneously guarding against fuel vapor loss.



Note: Numerous additional o-ring seal materials are developed and available for other non-fuel quick connect applications.

Features and Benefits

- ✓ Produced in Parker's Six-Sigma Fuel Systems work cell for unparalleled quality and precision
- ✓ Broad range of size and material choices
- ✓ Ability to minimize leakage and reduce overall system costs
- ✓ Superior permeation resistance and property retention
- ✓ Excellent performance in low temperatures
- ✓ Long-term durability

More than Manufacturing

Parker Hannifin is a leading supplier of o-ring sealing products to transportation-related industries. Parker has a range of customer support tools, including a dedicated product/applications engineering staff, Research and Development team, finite element analysis (FEA) assisted design, and inPHorm, a seal design and material selection software package.

Reference/Test Fuel Seal Recommendations

Parker Material	CE85	CM30	CM50	E85	FAM-A / FUEL 1	FAM-B / FUEL 2	FAM-C / FUEL 3	FUEL A	FUEL B	FUEL C	FUEL D	FUEL E	FUEL F	FUEL G	FUEL H / CE15	FUEL 1 / FUEL4/CM15	FUEL K / CM85	GASOLINE	GASOHOL	M15	M85	PN180	PN60	PN90	MTBE (PURE)
LM153-70 (11647)** fluorosilicone	2	3	3	2	3	3	4	1	1	2	3	3	1	3	2	3	4	2	2	3	4	2	2	2	4
VG183-75 (19657)** "GLT-type" FKM	2	3	3	2	2	3	4	1	1	1	1	1	1	2	1	3	4	1	1	3	4	2	2	2	4
VA151-75 (19357)** "A-type" FKM	1	3	3	1	1	3	4	1	1	1	1	1	1	1	1	3	4	1	1	3	4	1	1	1	4
VB153-75 (19717)** "B-type" FKM	1	2	2	1	1	2	3	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	3
V1263-75 low swell FKM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VW172-75 "GFLT-type" FKM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40656 FKM/FVMQ blend	2	3	3	2	2	3	4	1	1	2	2	2	1	3	2	3	4	2	2	3	4	2	2	2	4
NA151-70 (8307)*** standard nitrile	4	4	4	4	4	4	4	1	2	4	4	4	1	4	4	4	4	4	4	4	4	4	4	4	4
N1500-75 *** High ACN nitrile	3	3	4	3	4	4	4	1	1	2	3	4	1	3	2	3	4	2	2	3	4	3	3	3	2

* All recommendations are provided at room temperature (72°F / 22°C). Elevated temperatures may alter these recommendations.
** Compounds numbered (XXXXX) refer to the older Wynn's Precision compound numbering system.
*** Included for reference purposes

Rating Key
1 Recommended
2 Fair
3 Doubtful
4 Unsatisfactory

Contact a Parker Applications Engineer (859) 335-5101 for assistance.

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