FDA, USDA, NSF 51, USP Approved Compounds

The Food and Drug Administration (FDA) has established a list of rubber compounding ingredients which tests have indicated are neither toxic nor carcinogenic. Rubber compounds produced entirely from those ingredients and which also pass the FDA extraction tests are said to "meet the FDA requirements." The FDA does not approve rubber compounds. It is the responsibility of the manufacturer to compound food grade materials from the FDA list of ingredients and establish whether they pass the necessary extraction requirements.

Similar standards are established by the United States Department of Agriculture (USDA).

Additional requirements have been imposed upon seal manufacturers regarding food and beverage service. Parker has developed several materials that are certified to NSF 51, Food and Beverage Standard. In critical medical applications, seals often must be made from an even "cleaner" list of ingredients. The U.S. Pharmacopoeia (USP) Class VI outlines requirements for system toxicity and intracutaneous toxicity for these "cleaner" compounds. The USP Class VI compounds must be made from ingredients with clear histories of biocompatibility that meet tighter requirements for leachates.

Typical applications for our FDA, NSF 51, USDA materials are disposable medical devices, surgical instruments and medical fluid dispensing components, as well as a wide variety of food and beverage handling equipment. The type of approval/certification required generally rests with the end customer's regulatory expectations for the specific application.

PARKER COMPOUND	POLYMER	HARD-NESS	COLOR	SERVICE
E1583-70 (63017)	EPDM	70	Black	NSF 51
E1549-70 (63447)	EPDM	70	Black	NSF 51
EJ150-75 (3077)	EPDM	75	Black	FDA, USP Class VI
E3609-70	EPDM	70	Black	NSF 51, FDA, USP Class VI
E1028-70	EPDM	70	Black	FDA
V0680-70	FKM	70	Red	NSF 51, FDA, USDA
NJ253-70 (7077)	NBR	70	Black	FDA
N1219-60	NBR	60	Black	NSF 51, FDA
N1220-70	NBR	70	Black	NSF 51, FDA
N1069-70	NBR	70	Black	FDA
N0508-75	NBR	75	Black	FDA, USDA
V8545-75	FFKM	75	Black	FDA
V8562-75	FFKM	75	White	FDA
S0802-40	VMQ	40	White	FDA
S0317-60	VMQ	60	Rust	FDA, USDA
S1138-70	VMQ	70	Rust	FDA
SM150-40 (11354)	VMQ	40	Rust	FDA
SM151-50 (11355)	VMQ	50	Rust	FDA
SM152-60 (11356)	VMQ	60	Rust	FDA
SM153-70 (11357)	VMQ	70	Rust	FDA
S0355-75	VMQ	75	Rust	FDA, USDA

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NSF 61 Approved Compounds

NSF 61 - Drinking Water System Components - is the nationally recognized health effects standard for all devices, components and materials which contact drinking water. Parker's O-Ring Division has developed several materials that are certified to NSF 61. Many of these materials are approved for use in the United Kingdom (WRAS), and Germany (KTW) as well as North America.

NSF International - is an industry regulating agency that was established in 1944. Recognized by ANSI (American National Standards Institute), NSF maintains qualification standards and criteria for a wide range of products, including potable water components and delivery systems.

PARKER COMPOUND	POLYMER	HARD-NESS	WATER CONTACT TEMP	SERVICE
E1583-70 (63017)	EPDM	70	Commercial Hot **	NSF 61 Internally lubricated, ideal for high volume applications
E1561-60 (63446)	EPDM	60	Commercial Hot **	NSF 61, WRAS, KTW, ideal for high volume applications
E1549-70 (63447)	EPDM	70	Commercial Hot **	NSF 61, WRAS, KTW, excellent compression set resistance, ideal for high volume applications
E1570-70	EPDM	70	Commercial Hot **	NSF 61 Internally lubricated
E1571-70	EPDM	70	Commercial Hot **	NSF 61
E1244-70	EPDM	70	Commercial Hot **	NSF 61 Internally lubricated
E1257-70	EPDM	70	Commercial Hot **	NSF 61 Chloramine Resistant
E3609-70	EPDM	70	Commercial Hot **	NSF 61, WRAS, KTW, excellent compression set resistance
EJ151-80 (3958)	EPDM	80	Commercial Hot **	NSF 61, WRAS, KTW
N1517-70	Nitrile	70	Commercial Hot **	NSF 61
N1510-70 (67997)	Nitrile	70	Commercial Hot **	NSF 61
N0757-70	Nitrile	70	Cold Water***	NSF 61

* NSF 61 listed materials given a commercial hot water rating are also certified for cold water
** Commercial Hot = Tested at 82° C (180° F) (Commercial Hot)
*** Cold Water = Tested at 23° C (73.4° F)

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