

AP 307 | EPDM

FDA 21. CFR 177.2600

3-A Sanitary
Standard 18-03

USP Class VI



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AP 307 – a high-performance material in a class of its own

The AP 307 “HygienicSeal” series EPDM compound was developed to meet the strict hygienic design requirements in the food sector, pharmaceuticals industry, medicine and biotechnology. In addition to the safety assessment according to FDA 21, CFR 177.2600, this material complies with the 3-A Sanitary Standard 18-03, Class 2. It has been approved according to USP Chapter 87 and Chapter 88 Class VI up to +121 °C. The EPDM compound has also passed the cytotoxicity test (ISO 10993-5:2009).

AP 307 is therefore ideal for sensitive production processes where contamination with microorganisms has to be strictly prevented.



Performance highlights

- Certified to: FDA, 3-A Sanitary Standard and ISO 10993-5:2009 (cytotoxicity test)
- Temperature range: from -40 °C to +150 °C
- Excellent resistance to CIP and SIP procedures
- Excellent resistance to hot water and vapour
- Very good compression set



HygienicSeal AP 307 – ultimate performance in SIP and CIP processes

Elastomer seals frequently have to withstand extreme changes in conditions in the food and pharmaceuticals industries, medicine and biotechnology. These are caused by production processes, cleaning and sterilisation cycles in SIP or CIP processes, or aggressive WFI (water for injection). This high-performance EPDM material has been tested according to USP Class IV up to +121 °C. It can be used in WFI as well as media containing up to 30% fat.

The EPDM compound AP 307 scores additional points with a hardness of 75 Shore A and a low compression set of just 15% (24h/100 °C). These qualities measurably extend the reliable service life.

Material profile

COG material:	AP 307
Basic elastomer EPDM:	Ethylene-propylene-diene rubber
Colour:	black
Temperature range (air):	from -40 °C to +150 °C
Approvals/Certifications:	FDA 21. CFR 177.2600, USP Chapter 87 and Chapter 88 Class VI to +121 °C, ISO 10993-5:2009 (cytotoxicity test), 3-A Sanitary Standard 18-03, Class 2

Rubber technology data

Properties	Unit	Specimen	
		Value	Testing methods
Hardness	Shore A	75±5	DIN ISO 48
Hardness	°IRHD, CM	72±5	DIN ISO 48
Tensile strength	MPa	> 10	n/a
Elongation	%	> 150	n/a
Compression set (24h/100 °C)	%	< 15	DIN ISO 815

The indicated values do not replace the official data sheet. They are not binding and exclude all liability for damage of any kind.



SIP tested



CIP tested



WFI tested



SIP = Sterilisation in place
CIP = Cleaning in place
WFI = Water for injection

