

Flex-Pure™ Peroxide Cured EPDM

EPDM (ethylene propylene diene rubber) has a good temperature resistance from -34°C (-29°F) to 149°C (300°F) and has excellent media resistance to hot water, steam, acids and alkalis. Due to its very good resistance to steam, acids and alkalis, EPDM is compatible with most CIP (Cleaning in Place) and SIP (Sterilization in Place) cleaning media. EPDM is therefore suitable for use in sterilizable bioreactors and in many synthesis processes for active pharmaceutical ingredients. EPDM is only suitable to a very limited extent for use in media containing oil and grease and non-polar solvents.

MAIN SEGMENTS

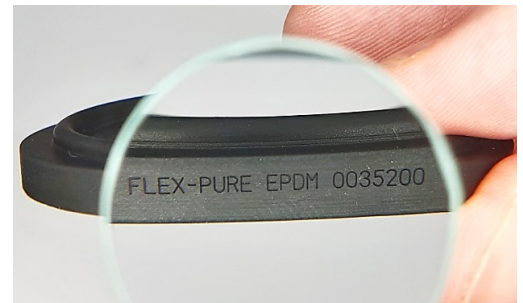
Pharmaceutical
Food

COMPLIANCE/TESTING

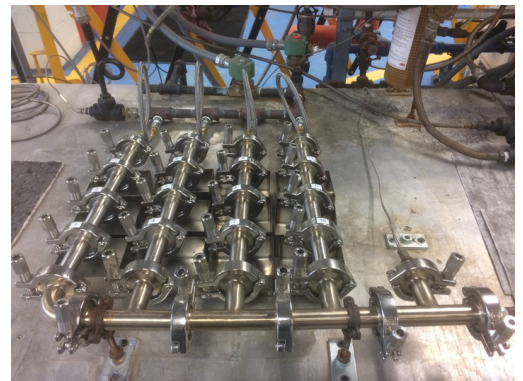
- USP Class VI <87>, <88> (121°C)
- 3A Sanitary Standard 18-03 Class II
- FDA 21 CFR177.2600 (Formulation & Extraction)
- Simulated SIP Testing (500 Cycles) in accordance with ASME BPE-2019 (SG-4.2 Static Seal Performance)
- CIP Detergent (Alkaline and Acid) exposure testing
- Steam Immersion testing
- EC1935/2004 (EU Food Contact Regulation)
- Manufactured in compliance with EC2023/2006 (GMP)
- Manufactured in compliance with FDA 21 CFR174.5 (cGMP)
- ADI free (EMEA 410/01)

KEY BENEFITS

- Laser marked by default with lot number and material name
- Full and Easy Traceability
- Easy Material Identification
- High Purity Compound - Peroxide Cured
- Clean and Easy Removal of gaskets - No sticking to the stainless-steel flanges
- Suitable for SIP and CIP processes
- Good Steam Resistance - Very low swell and minimal loss of physical properties after repeated steam cycling
- Good Chemical Resistance - Very low swell and minimal loss of physical properties after long-term exposure to CIP media
- Very low Compression Set for best sealing performance
- High Dimensional Stability
- Low Extractable values
- Wide Temperature range



Laser marked by default with lot number and material name



Steam-In-Place test stand for hygienic gaskets

Flex-Pure™ EPDM

Other EPDM



After exposure to 500 SIP cycles: Comparison of stainless steel flanges after removal of EPDM gaskets

Flex-Pure™ - Peroxide Cured EPDM

Gasket Dimensions and Item Numbers

DIN11850/10357 (DIN32676: Row A) (Pipe connection DIN 11866 Row A)			
Item No.	DN	ID ⁴⁾ (mm)	OD (mm)
DIN32676-06-E-NG-LE	06	9,70	21,8
DIN32676-08-E-NG-LE	08	11,20	21,8
DIN32676-10-E-NG-LE	10	12,70	34,0
DIN32676-15-E-NG-LE	15	18,70	34,0
DIN32676-20-E-NG-LE	20	22,70	34,0
DIN32676-25-E-NG-LE	25	27,70	50,5
DIN32676-32-E-NG-LE	32	33,20	50,5
DIN32676-40-E-NG-LE	40	38,70	50,5
DIN32676-50-E-NG-LE	50	50,70	64,0
DIN32676-65-E-NG-LE	65	≥66,2	91,0
DIN32676-80-E-NG-LE	80	≥81,2	106,0
DIN32676-100-E-NG-LE	100	≥100,2	119,0
DIN32676-125-E-NG-LE	125	≥125,2	155,0
DIN32676-150-E-NG-LE	150	≥150,2	183,0
DIN32676-200-E-NG-LE	200	≥200,2	233,5

ISO1127 (DIN32676: Row B) (Pipe connection DIN 11866 Row B)			
Item No.	DN	ID ⁴⁾ (mm)	OD (mm)
ISO1127-06-E-NG-LE	10,2	10,20	21,8
ISO1127-08-E-NG-LE	13,5	12,50	21,8
ISO1127-10-E-NG-LE	17,2	15,70	21,8
ISO1127-15-E-NG-LE	21,3	19,80	50,5
ISO1127-20-E-NG-LE	26,9	24,90	50,5
ISO1127-25-E-NG-LE	33,7	30,90	50,5
ISO1127-32-E-NG-LE	42,4	39,10	64,0
ISO1127-40-E-NG-LE	48,3	45,00	64,0
ISO1127-50-E-NG-LE	60,3	57,00	77,5
ISO1127-65-E-NG-LE	76,1	≥72,3	91,0
ISO1127-80-E-NG-LE	88,9	≥84,5	106,0
ISO1127-100-E-NG-LE	114,3	≥109,9	130,0
ISO1127-125-E-NG-LE	139,7	≥134,7	155,0
ISO1127-150-E-NG-LE	168,3	≥163,3	183,0
ISO1127-200-E-NG-LE	219,1	≥214,1	233,5

ASME BPE (DIN32676: Row C) (Pipe connection DIN 11866 Row C)			
Item No.	DN	ID ⁴⁾ (mm)	OD (mm)
42MPE-025-NG-LE ¹⁾	1/4"	9,30	21,8
42MPE-0375-NG-LE ¹⁾	3/8"	11,00	21,8
42MPE-050-NG-LE ¹⁾	1/2"	12,60	21,8
42MPE-075-NG-LE ¹⁾	3/4"	17,50	21,8
40MPE-100-NG-LE	1"	23,80	50,5
40MPE-150-NG-LE	1 1/2"	36,00	50,5
40MPE-200-NG-LE	2"	48,20	64,0
40MPE-250-NG-LE	2 1/2"	60,90β	77,5
40MPE-300-NG-LE	3"	≥73,1	91,0
40MPE-400-NG-LE	4"	≥97,6	119,0
40MOFE-600-NG-LE ²⁾	6"	≥147,1	167,0
40MOFE-800-NG-LE ²⁾	8"	≥197,9	217,7
40MOFE-1000-NG-LE ²⁾	10"	≥247,4	268,5
40MOFE-1200-NG-LE ²⁾	12"	≥298,2	319,3

Physical Properties ³⁾		
Property	Test method	Result
Hardness (Shore A)	ASTM D 2240	75 ±5
Tensile Strength (MPa)	ISO 37 Type 1	19,5 (2828 psi)
Elongation (%)	ISO 37 Type 1	205
Specific Gravity (g/cm ³)	ISO 2781 A	1,14
100% Modulus (MPa)	ISO 37 Type 1	6,5 (943 psi)
Compression Set (%) 22 hours @ 100°C	ISO 815 B	6
Compression Set (%) 22 hours @ 150°C	ISO 815 A	12
Color	Black	
Storage Stability	10 years	

1) 42 Part designation number for mini size gaskets

2) Type II Flanged

3) The preceding Physical Properties data gives the typical properties of the mentioned material.

4) The Inner Diameter values are optimized by Rubber Fab. And are tested at 30 in/lbs (3,3Nm) tightening torque, to obtain the best possible fit during installation and service.

NOTE: Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Rubber Fab. Failure to select the proper sealing products could result in property damage and/or serious personal injury. While the utmost care has been used in compiling this data, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Rubber Fab is a registered trademark for packings, seals, gaskets, and other products

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