

BLADDER MATERIAL SPECIFICATIONS

BLADDER ACCUMULATORS - PARTS

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The following chart is for typical applications at moderate cycles and is based on a combination of laboratory results and field testing. System fluid selection and contamination can significantly affect performance. Since real world usage can vary widely, ACC INC cannot guarantee the acceptability of any particular system or the expected life of an elastomer product.

The use of compatible clean fluids is highly recommended. Proper filtration is necessary. High temperature applications should use oil coolers. Low temperature applications require fluid that is in a liquid state.

BLADDER MATERIAL SPECIFICATIONS							
RUBBER COMPOUND	CODE	PEAK RANGE (F)	OPTIMAL RANGE (F)	PERMEABILITY	HARDNESS SHORE (A)	TENSILE (PSI)	ELONGATION (%)
BUNA-NITRILE	N/A	-10 TO 220	35 TO 160	.39	60	2000	400
LOW TEMP BUNA-NITRILE	L	-60 TO 200	-25 TO 145	2.05	50	1500	400
EXTREME LOW TEMP NITRILE	X	-80 TO 200	-25 TO 145	2.10	60	1500	400
BUTYL	B	-45 TO 200	35 TO 160	.22	60	1500	400
ETHYLENE-PROPYLENE (EPR)	E	-55 TO 330	35 TO 250	2.25	60	1500	400
FLUORO-ELASTOMER (FKM)	V	0 TO 350	35 TO 350	1.72	65	1300	400
HYDRIN	H	-40 TO 275	-	.23	60	1300	400

PEAK: Upper value is based on polymer vendor data. Lower value is based on ASTM D-1053.

OPTIMAL: Based on good hydraulic practices. Extended operation beyond these temperatures may shorten the life of the bladder.

PERMEABILITY: Based on ASTM D-1434 at 73° F. Units x 10⁻⁸ cm²/sec • atm.

PHYSICAL PROPERTIES: Values are nominal and are based on laboratory results.

BLADDER ELASTOMER CAPABILITY

There are thousands of chemical compounds that have been tested with bladder elastomers. An up to date compatibility chart of the most popular fluids can be found on our website at www.accumulators.com/rubber-compatibility.html.

Please contact our sales department for additional assistance in determining the proper elastomer for your application.