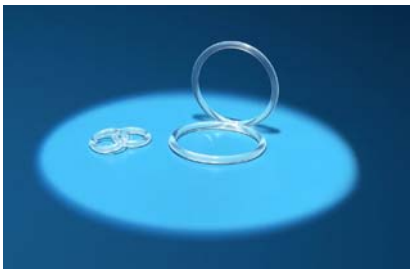
<VKR-110-001>

ARCURY® Series

ARCURY® AD

ARCURY® AL

ARCURY® SO



ARCURY® OZT

ARCURY® OZW

Features and Typical Properties

Material Name	ARCURY®-AD	ARCURY®-AL	ARCURY®-SO	ARCURY®-OZT	ARCURY®-OZW
Feature	Excellent resistance against acid Excellent purity (lowest extraction of metals and organics)	Excellent resistance against alkali solvent including ammonia	Excellent resistance against polar organic solvent including ketone, ester and amine	Excellent resistance against ozone gas and ozone water Excellent purity (lowest extraction of metals and organics)	Excellent resistance against ozone gas and ozone water Higher heat resistance
Color	Transparent Amber	Black	White	Transparent clear	White
Hardness (Shore A)	67	75	73	60	68
Tensile Strength (MPa)	12.0	23.8	9.4	17.0	13.0
Elongation (%)	190	220	185	580	230
100% Modulus (MPa)	3.3	7.5	4.6	1.7	3.4
Compression Set (%)	25*1)	31*1)	16*2)	48*2)	37*1)
Main applications	1. Wafer and glass substrate cleaning equipment 2. Spin coater, Spin developer 3. Chemical carrier tank seal 4. Seals for Valves, Filters and Joints			1. Ozone cleaning machine 2. Ozone generation machine 3. Ozone decomposition machine	

*1) 72hours@200C, 25% Squeeze, AS568A-214 O-ring *2) 72hours@150C, 25% Squeeze, AS568A-214 O-ring

Above values are not standard values, but actual measurement values.

NIPPON VALQUA INDUSTRIES, Ltd.

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Chemical compatibilities

ARCURY® AD

Chemical	Conditions	Swelling Ratio
Ultra pure water	80C, 30 days	0
Fluoric acid	25C, 30 days	0
HCl (36wt%):H_2O_2 (30wt%):H_20 = 1:1:5	80C, 168 hours	< 5%
H_2SO_4 (98wt%):H_2O_2 (30wt%) = 4:1	80C, 168 hours	< 5%
HF (50wt%):H_2O_2 (30wt%):H_2O = 1:1:100	23C, 168 hours	< 5%
HF (50wt%):H_2O =1:100	80C, 168 hours	< 5%
HF (47wt%):NH_4F (40wt%) = 1:6	23C, 168 hours	< 5%
H_3PO_4 (85wt%)	80C, 168 hours	< 5%

ARCURY® AL

Chemical and Solvent	Conditions	Result	
		ARCURY®-AL	General FKM
NMP	80C, 168hrs	5.7%	300%
Ammonium Water (30%)	40C, 168hrs	1.6%	181%
Methyl Ethyl Ketone	R.T., 168HRS	>50%	>50%
Methanol	R.T., 168HRS	<5%	>50%
Ammonia Water (30%)	40C, 168HRS	<5%	>50%
Ethyl Acetate	R.T., 168HRS	>50%	>50%
Di-n-Buthyl Ether	R.T., 168HRS	20~50%	<5%
Sodium Hydroxide (50%)	40C, 168HRS	<5%	<5%
Hydrochloric Acid (35%)	40C, 168hrs	<5%	5~20%
Sulfuric Acid (97%)	40C, 168hrs	<5%	<5%
Nitric Acid (65%)	40C, 168hrs	<5%	20~50%
Acetic Acid	40C, 168hrs	20~50%	>50%
Fluoric Acid (46%)	40C, 168hrs	<5%	<5%
Hydrogen Peroxide (31%)	R.T., 168hrs	<5%	<5%

ARCURY® SO

Chemical and Solvent	Conditions	Result	
		ARCURY®-SO	General FKM
Methyl Ethyl Ketone	R.T., 168hrs	15.8%	266%
Ethyl Acetate	R.T., 168hrs	17.7%	248%
Mono Ethanol Amine	80C, 168hrs	3%	(dissolved)
Methanol	R.T., 168hrs	<5%	>50%
Di-n-Buthyl Ether	R.T., 168hrs	>50%	<5%
Ammonia Water (30%)	40C, 168hrs	<5%	>50%
Sodium Hydroxide (50%)	40C, 168hrs	<5%	<5%
Hydrochloric Acid (35%)	40C, 168hrs	<5%	5~20%
Nitric Acid (65%)	40C, 168hrs	5~20%	20~50%
Acetic Acid	40C, 168hrs	5~20%	>50%
Fluoric Acid (46%)	40C, 168hrs	5~20%	<5%
Hydrogen Peroxide (31%)	R.T., 168hrs	<5%	<5%
NMP	80C, 168hrs	5~20%	>50%

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<Self-Judgment of Technology Transfer: Category D>