

AION ROLLERS COMPARISON TABLES

2013/10/17
Aion Co., Ltd.

	PVA Roller	PU Roller (Sofrous)	PO Roller (Pyorous)	Fluorine Roller
Basic Structure				
Material	Polyvinyl formal (PVFM)	Polyurethane(PU)	Polyolefin elastomer (PO)	Fluoro elastomer
Basic Physical Properties				
Water retention (wt%)	1100	400	180	80
Porosity (%)	90	83	63	60
Tensile Strength (kPa)	400	1000	400	600
Elongation(%)	250%	270	1000	250
C-Hardness	—	11	15	30
Average pore diameter (μ m)	150	25	25	25
Heat resistance (°C)	60	100(Water) / 130(Air)	100	130
Condition in wet	Soft	Soft	Soft	Soft
Condition in dry	hard	Soft	Soft	Soft
Chemical Resistance (General)				
Acid	△	○	◎	◎
Alkali	○	×	◎	◎
Alcohol	×	◎	◎	◎
Aromatic hydrocation	△	×	×	×
Chemical Resistance (Detail)				
Sulfuric acid	○(Under 5%)	○(35%and less)	○(50% and less)	○(50% and less)
Nitric acid	○(Under 1%)	○(5%and less)	△(60% and less)	○(60% and less)
Hydrochloric acid	○(Under 3%)	○(15%and less)	○(36% and less)	○(36% and less)
Sodium hydroxide	○(Under 5%/hard at high concentrations)	△1%and less (Time degradation)	○(30% and less)	○(30% and less)
Sodium hypochlorite	×	△(1000ppm and less)	△(5% and less)	○(5% and less)
Ammonium	○(5% and less)	○ (10% and less)	○ (10% and less)	△ (10% and less)
Potassium permanganate	×	×	× (5% and less)	○(5% and less)
Methanol	× (30~90%)	○	○	○
Ethanol	× (20~90%)	○	○	○
Toluene	○	×	×	△
Acetone	× (20~90%)	×	○	×
Available Size *				
Outside Diamiter (mm)	25~298	30~100	30~60	20~40
Inside Diamiter (mm)	8~216	10~26	15~30	14~20
Length (mm)	<900, <1500, <2500	< 800 or 1,100	< 1,000	<700

*Please consultant the exact available size of combinaion for OD, ID & Length.