

# FILTRATION AND PURIFICATION GUIDE FOR METAL FINISHING SOLUTIONS

PROCESS	pH	TEMPERATURE °F	TURNOVERS / HOUR	SURFACE AREA ft. <sup>2</sup> /per 100 GAL.	MEDIA FIBER / CORE	MICRON DENSITY	CARBON TREATMENT	MATERIALS	
								PREFERRED	ALTERNATE
Anodizing, Decorative	<1.0	60 - 80	2 - 4X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / Viton	PVDF / Viton
Anodizing, Hard	<1.0	30 - 35	2 - 4X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / Viton	PVDF / Viton
Nickel Acetate Seal	5.5	190 - 200	2 - 3X	7.0 - 10.5	Polypro / SS	10 - 20	N / A	PVDF / Viton	316SS / Viton
Brass, Bronze (CN)	>10.0	100 - 140	2 - 4X	7.0 - 10.5	Polypro / SS	10 - 20	N / A	PP / EPDM	PVC / EPDM
Cadmium (CN)	>10.0	80 - 100	2 - 4X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / EPDM	PP / EPDM
Cadmium, Sulfate	1.0	70 - 90	2 - 4X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / EPDM	PP / EPDM
Cadmium, Chloride	7.5	70 - 90	2 - 4X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / EPDM	PP / EPDM
Cleaner, Soak	>10.0	90 - 200	2 - 4X	10.5 - 17.5	Polypro / Polypro	15 - 50	N / A	316SS / EPDM	PP / EPDM
Cleaner, Electro	> 8.0	50 - 90	2 - 4X	10.5 - 17.5	Polypro / Polypro	15 - 75	N / A	PP / EPDM	PVC / EPDM
Chromium (Hex.)	<1.0	100 - 140	2 - 3X	7.0 - 10.5	HI-PERF	10 - 20	N / A	CPVC / Viton	PVDF/HYPALON
Chromium (Tri.)	2.5	70 - 80	2 - 4X	10.5 - 14.0	Polypro / Polypro	5 - 15	Periodic	CPVC / EPDM	PVC / EPDM
Copper (CN)	12.0	70 - 140	2 - 4X	7.0 - 10.5	Polypro / SS	10 - 20	Periodic	PP / EPDM	CPVC / EPDM
Copper, Sulfate	<1.0	70 - 80	2 - 6X	10.5 - 14.0	Polypro / Polypro	5 - 15	Periodic	CPVC / EPDM	PP / EPDM
Copper, Fluoroborate	<1.0	70 - 90	2 - 4X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	CPVC / EPDM	PP / EPDM
Copper, Pyrophosphate	8.0	110 - 140	2 - 5X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	PP / EPDM	CPVC / EPDM
Copper, Electroless	13.0	80 - 120	4 - 10X	7.0 - 10.5	Polypro / Polypro	1 - 10	N / A	CPVC / EPDM	PP / EPDM
Gold, Acid	3.5 - 5.0	80 - 120	3 - 6X	7.0 - 10.5	Polypro / Polypro	1 - 10	Periodic	PP / EPDM	CPVC / EPDM
Gold, Neutral	6.0 - 7.0	80 - 120	3 - 6X	7.0 - 10.5	Polypro / Polypro	1 - 10	Periodic	PP / EPDM	CPVC / EPDM
Gold, Alkaline (CN)	8.0 - 12.0	100 - 140	3 - 5X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	PP / EPDM	CPVC / EPDM
Iron, Chloride	3.0	120 - 140	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / EPDM	PP / EPDM
Lead, Fluoborate	1.0	90 - 100	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	N / A	CPVC / EPDM	PVDF / Viton
Nickel, Watts	4.0 - 5.0	120 - 160	2 - 5X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	CPVC / EPDM	PP / EPDM
Nickel, Woods	2.0	120 - 140	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / EPDM	PVC / EPDM
Nickel, Sulfamate	4.0	100 - 130	2 - 5X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	CPVC / EPDM	PP / EPDM
Nickel, Electroless	4.0 - 6.0	180 - 200	6 - 12X	7.0 - 10.5	Polypro / Polypro	1 - 10	N / A	CPVC / Viton	PVDF / Viton
Nickel, Electroless	>10.0	120 - 190	6 - 12X	7.0 - 10.5	Polypro / Polypro	1 - 10	N / A	CPVC / Viton	—
Palladium, Amine	8.0 - 9.0	80 - 120	3 - 5X	7.0 - 10.5	Polypro / Polypro	1 - 10	N / A	PP / EPDM	—
Palladium - Nickel	8.0 - 9.0	80 - 120	3 - 5X	7.0 - 10.5	Polypro / Polypro	1 - 10	N / A	PP / EPDM	—
Rhodium	1.0	100 - 120	3 - 5X	7.0 - 10.5	Polypro / Polypro	1 - 10	Periodic	CPVC / EPDM	PP / EPDM
Silver (CN)	12.0	70 - 85	3 - 5X	7.0 - 10.5	Polypro / Polypro	5 - 15	Periodic	PP / EPDM	CPVC / EPDM
Tin, Sulfuric	<1.0	70 - 85	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / Viton	PVC / Viton
Tin, MSA	2.0	70 - 120	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / Viton	PP / Viton
Tin, Alkaline	12.0	140 - 160	2 - 3X	10.5 - 14.0	Polypro / Polypro	20 - 30	N / A	PP / EPDM	—
Tin - Nickel	2.5	140 - 160	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / Viton	PP / EPDM
Tin - Lead, MSA	2.0	70 - 100	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / Viton	PP / EPDM
Tin - Lead, Fluoborate	1.0	70 - 100	2 - 3X	7.0 - 10.5	Polypro / Polypro	10 - 20	Periodic	CPVC / EPDM	PVC / EPDM
Zinc, Chloride	5.0 - 6.0	70 - 120	3 - 5X	14.0 - 17.5	Polypro / Polypro	20 - 30	Periodic	CPVC / EPDM	PVC / EPDM
Zinc - Cobalt	5.0 - 6.0	70 - 100	3 - 5X	14.0 - 17.5	Polypro / Polypro	20 - 30	Periodic	CPVC / EPDM	PVC / EPDM
Zinc, Alkaline	>13.0	70 - 100	2 - 4X	10.5 - 14.0	Polypro / Polypro	20 - 30	N / A	PP / EPDM	316SS / EPDM
Zinc (CN)	>13.0	70 - 100	2 - 4X	10.5 - 14.0	Polypro / SS	20 - 30	N / A	PP / EPDM	316SS / EPDM

## NOTES:

- Use information as a guide only. Contact SERFILCO Sales Department for specific recommendations.
- Maximum temperature for materials:  
**PLASTICS:** PVC - 130°F; PP - 150°F; CPVC - 180°F; PVDF - 200°F  
**ELASTOMERS:** EPDM - 180°F; Viton® - 200°F; Hypalon® - 200°F
- Surface area is measured in sq. ft. and based on depth wound cartridges (each 2½" diameter x 10" long unit = 3.5 sq. ft. in equivalent dirt loading).
- Increasing the surface area improves efficiency and prolongs the time interval between media change.
- Increased turnover allows the use of coarser media to increase solids holding capacity.
- For best results, **continuous** filtration should be used in every application.
- Periodic carbon treatment is most efficient when using optional carbon filtration chamber.
- Above 180°F consider using steel or stainless steel.  
PP or Polypro = Polypropylene      N / A = Not applicable  
SS = Stainless Steel