

# Purification Resins for General Use



## NP, RP, and Chiral Phases


	Stationary Phase	Base Material	Particle Size* (µm)	Pore Size (nm)	pH Range	Typical Applications	
Reversed Phase	C18	YMC-Triart Prep C18-S	Organic/inorganic hybrid silica	7, 10, 15, 20	12	2.0 - 10.0	acidic, neutral, basic compounds, peptides, oligonucleotides, small molecules, amino acids, APIs, sugars
		YMC*Gel ODS-A-HG	High grade silica	10, 15, 20, 50	8, 12, 20, 30	2.0 - 7.5	peptides, amino acids, proteins, pharmaceuticals
		YMC*Gel ODS-AQ-HG	High grade silica	10, 15, 20, 50	8, 12, 20	2.0 - 7.5	peptides, pharmaceuticals (particularly for more polar compounds), nucleic and amino acids
	C8	YMC-Triart Prep C8-S	Organic/inorganic hybrid silica	10, 15, 20	12, 20	2.0 - 10.0	acidic, neutral, basic compounds, peptides, oligonucleotides, small molecules, amino acids, APIs
		YMC-Triart Prep Bio200 C8	Organic/inorganic hybrid silica	10	20	2.0 - 10.0	peptides (especially insulin, insulin-like peptides), oligonucleotides, proteins
		YMC*Gel C8-HG	High grade silica	10, 15, 20, 50	12, 20, 30	2.0 - 7.5	peptides, proteins, pharmaceuticals
		YMCbasic	Classical silica	10	20	2.0 - 7.5	basic compounds, small molecules, peptides (specifically insulin)
	Phenyl	YMC-Triart Prep Phenyl-S	Organic/inorganic hybrid silica	10	12	2.0 - 10.0	acidic, neutral, basic compounds, peptides, small proteins, phenols, aromatics
		YMC*Gel Ph-HG	High grade silica	10, 15, 20, 50	12, (20, 30)	2.0 - 7.5	phenols, aromatics, fullerenes, sweeteners
	C4	YMC-Triart Prep C4-S	Organic/inorganic hybrid silica	10	12	2.0 - 10.0	non-polar peptides
YMC*Gel C4-HG		High grade silica	10, 15, 20, 50	12, 20, 30	2.0 - 7.5	peptides, proteins, antibodies	
YMC*Gel TMS-HG		High grade silica	10, 15, 20, 50	12, (20, 30)	2.0 - 7.5	(water soluble) vitamins	
Normal Phase/HILIC	NH <sub>2</sub>	YMC*Gel NH <sub>2</sub> -HG (Amino)	High grade silica	10, 15, 20, 50	12, (20, 30)	2.0 - 7.5	nucleotides, sugars, (water soluble) vitamins
	CN	YMC*Gel CN-HG (Cyano)	High grade silica	10, 15, 20, 50	12, (20, 30)	2.0 - 7.5	RP, NP, SFC, HILIC, proteins, steroids, catechols, nitroaromatics
	Diol	YMC*Gel Diol-HG	High grade silica	10, 15, 20, 50	12, 20, 30	2.0 - 7.5	NP, SFC, HILIC, steroids, (fat-soluble) vitamins, small organic molecules, tocopherols, phenols
		YMC*Gel SIL-HG (Silica)	High grade silica	10, 15, 20, 50	6, 8, 12, 20, 30	-	NP, SFC, HILIC, steroids, (fat-soluble) vitamins, small organic molecules, tocopherols
		YMC*Gel SIL (Silica)	Classical silica	50, 75, 150	6, 12	-	steroids, (fat-soluble) vitamins, small organic molecules, tocopherols
Chiral	Polysaccharides	CHIRAL ART Amylose-C Neo	Classical silica	10, 20	proprietary	-	NP, SMB and SFC mode, wide application range for chiral separations
		CHIRAL ART Cellulose-C	Classical silica	10, 20	proprietary	-	NP, SMB and SFC mode, wide application range for chiral separations
		CHIRAL ART Amylose-SA	Classical silica	10, 20	proprietary	2.0 - 9.0	NP, SMB, SFC and RP mode, wide application range for chiral separations
		CHIRAL ART Cellulose-SB	Classical silica	10, 20	proprietary	2.0 - 9.0	NP, SMB, SFC and RP mode, wide application range for chiral separations
		CHIRAL ART Cellulose-SC	Classical silica	10, 20	proprietary	2.0 - 9.0	NP, SMB, SFC and RP mode, wide application range for chiral separations
		CHIRAL ART Cellulose-SJ	Classical silica	10, 20	proprietary	2.0 - 9.0	NP, SMB, SFC and RP mode, wide application range for chiral separations

\*Not all combinations of particle and pore sizes are available



# Purification Resins for Bioseparations

## IEX, SEC, and RP Phases

		Stationary Phase	Base Material	Particle Size* (µm)	Pore Size (nm)	pH Range	Target molecules and typical applications in DSP
IEX	AEX	BioPro IEX Q75	Hydrophilic polymer beads	75	porous	2.0 - 12.0	Capturing and high-scale purification of proteins and oligos, removal of DNA and HCP
		BioPro IEX SmartSep Q30	Hydrophilic polymer beads	30	porous	2.0 - 12.0	Large-scale polishing and purification of proteins, peptides, VLPs, oligos and plasmids
		BioPro IEX Smartsep Q20	Hydrophilic polymer beads	20	porous	2.0 - 12.0	Large-scale polishing and purification of proteins, peptides, VLPs, oligos and plasmids
		BioPro IEX Smartsep Q10	Hydrophilic polymer beads	10	porous	2.0 - 12.0	Polishing of protein, peptide and oligo purification at high resolution
	CEX	BioPro IEX S75	Hydrophilic polymer beads	75	porous	2.0 - 12.0	Capturing and high-scale purification of proteins, removal of HCP
		BioPro IEX Smartsep S30	Hydrophilic polymer beads	30	porous	2.0 - 12.0	Large-scale polishing and purification of proteins, peptides, antibodies
		BioPro IEX Smartsep S20	Hydrophilic polymer beads	20	porous	2.0 - 12.0	Large-scale polishing and purification of proteins, peptides, antibodies
		BioPro IEX Smartsep S10	Hydrophilic polymer beads	10	porous	2.0 - 12.0	Polishing of protein and peptide purification at high resolution
SEC		YMC*Gel Diol-HG-120	High grade silica	10, 15, 20, 50	12	5.0 - 7.5	Purification of small proteins, separation from aggregates
		YMC*Gel Diol-HG-200	High grade silica	10, 15, 20	20	5.0 - 7.5	Purification of intermediate and larger proteins, nanodiscs, separation from aggregates
		YMC*Gel Diol-HG-300	High grade silica	10, 15, 20	30	5.0 - 7.5	Purification of large proteins, complexes, antibodies, VLPs and lipoproteins
Reversed Phase	C18	YMC-Triart Prep C18-S	Organic/inorganic hybrid silica	7, 10, 15, 20	12	2.0 - 10.0	Purification of biologicals in acidic, neutral and basic conditions, sample desalting and concentration
		YMC*Gel ODS-A-HG	High grade silica	10, 15, 20, 50	8, 12, 20, 30	2.0 - 7.5	Purification of small proteins and peptides
		YMC*Gel ODS-AQ-HG	High grade silica	10, 15, 20, 50	8, 12, 20	2.0 - 7.5	Purification of more polar biomolecules like nucleic acids, sample desalting and concentration
	C8	YMC-Triart Prep C8-S	Organic/inorganic hybrid silica	10, 15, 20	12, 20	2.0 - 10.0	Capturing and intermediate purification of larger proteins in acidic, neutral and basic conditions
		YMC-Triart Prep Bio200 C8	Organic/inorganic hybrid silica	10	20	2.0 - 10.0	Purification of larger peptides, specifically insulin at broad pH-range
		YMC*Gel C8-HG	High grade silica	10, 15, 20, 50	12, 20, 30	2.0 - 7.5	Capturing and intermediate purification of larger proteins
		YMCbasic	Classical silica	10	20	2.0 - 7.5	Purification of peptides and basic compounds
		YMC-Triart Prep Phenyl-S	Organic/inorganic hybrid silica	10	12	2.0 - 10.0	Purification of peptides and small proteins in acidic, neutral and basic conditions
		YMC*Gel Ph-HG	High grade silica	10, 15, 20, 50	12, (20, 30)	2.0 - 7.5	Purification of proteins with low/intermediate hydrophobicity
	C4	YMC*Gel C4-HG	High grade silica	10, 15, 20, 50	12, 20, 30	2.0 - 7.5	Separation of protein isoforms, aggregate removal, removal of HCP
YMC-Triart Prep C4-S		Organic/inorganic hybrid silica	10	12	2.0 - 10.0	Purification of biologics with low polarity in acidic, neutral and basic conditions	

\*Not all combinations of particle and pore sizes are available

Contact your YMC representative or [info@ymc-america.com](mailto:info@ymc-america.com) for more information about these and other YMC resins.



8 Charlestown Street, Devens, MA 01434 • United States  
Tel: 978.487.1100  
[sales@ymc-america.com](mailto:sales@ymc-america.com) • [www.ymc-america.com](http://www.ymc-america.com)



YMC Co., Ltd Headquarters • Kyoto, Japan  
Tel: +81.75.342.4515  
[sales@ymc.co.jp](mailto:sales@ymc.co.jp) • [www.ymc.co.jp/en](http://www.ymc.co.jp/en)