



# RYER, Inc.

Developer, Manufacturer and Supplier of  
Custom and Standard Feedstocks for the  
Metal Injection Molding Industry.

## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
1006-8022OS	100Cr6 (SAE 52100)	D80 -22µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1006-8516CS	100Cr6 (SAE 52100)	D85 -16µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	pending	pending	pending
1006-8522CS	100Cr6 (SAE 52100)	D85 -22µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	pending	pending	pending
1006-8532CS	100Cr6 (SAE 52100)	D85 -32µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	pending	pending	pending
1006-9016OS	100Cr6 (SAE 52100)	D90 -16µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1006-9022OS	100Cr6 (SAE 52100)	D90 -22µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1006-9032OS	100Cr6 (SAE 52100)	D90 -32µm	Solvent, SFE or Thermal	G52986	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
1010-9015AS	1010	D90 -15µm, PF-10F	Solvent, SFE or Thermal	G10100	Rounded	Water	3.0	6.0	15.0
1010-9020AS	1010	D90 -20µm, PF-15F	Solvent, SFE or Thermal	G10100	Rounded	Water	3.0	8.0	20.0
1010-9023AS	1010	D90 -23µm, PF-20F	Solvent, SFE or Thermal	G10100	Rounded	Water	4.0	10.0	23.0
1550-8022OS	15-5PH	D80 -22µm	Solvent, SFE or Thermal	S15500	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1550-9016OS	15-5PH	D90 -16µm	Solvent, SFE or Thermal	S15500	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1550-9022OS	15-5PH	D90 -22µm	Solvent, SFE or Thermal	S15500	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1550-9032OS	15-5PH	D90 -32µm	Solvent, SFE or Thermal	S15500	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
1740-8022OS	17-4PH	D80 -22µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1740-8022US	17-4PH	D80 -22µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	5	13.5	27
1740-8516CS	17-4PH	D85 -16µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	pending	pending	pending
1740-8522CS	17-4PH	D85 -22µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	pending	pending	pending
1740-8532CS	17-4PH	D85 -32µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	pending	pending	pending
1740-9008AS	17-4PH	D90 -08µm, PF-5F	Solvent, SFE or Thermal	S17400	Rounded	Water	3.0	6.0	8.0
1740-9010OS	17-4PH	D90 -10µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	3.0	5.7	10.0
1740-9015AS	17-4PH	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S17400	Rounded	Water	3.0	6.0	15.0
1740-9016OS	17-4PH	D90 -16µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1740-9016US	17-4PH	D90 -16µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	3.5	8.5	15.5
1740-9016AS	17-4PH	D90 -16µm, PF-13F	Solvent, SFE or Thermal	S17400	Rounded	Water			
1740-9020AS	17-4PH	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S17400	Rounded	Water	3.0	8.0	20.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
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Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
1740-9022OS	17-4PH	D90 -22µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1740-9022US	17-4PH	D90 -22µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	4	11	21.5
1740-9023AS	17-4PH	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S17400	Rounded	Water	4.0	10.0	23.0
1740-9031US	17-4PH	D90 -31µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	5	15	30.5
1740-9032OS	17-4PH	D90 -32µm	Solvent, SFE or Thermal	S17400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
1770-8022OS	17-7PH	D80 -22µm	Solvent, SFE or Thermal	S17700	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1770-9016OS	17-7PH	D90 -16µm	Solvent, SFE or Thermal	S17700	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1770-9022OS	17-7PH	D90 -22µm	Solvent, SFE or Thermal	S17700	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1770-9032OS	17-7PH	D90 -32µm	Solvent, SFE or Thermal	S17700	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
2507-8022OS	2507	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
3030-8022OS	303	D80 -22µm	Solvent, SFE or Thermal	S30300	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
3030-9016OS	303	D90 -16µm	Solvent, SFE or Thermal	S30300	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
3030-9022OS	303	D90 -22µm	Solvent, SFE or Thermal	S30300	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
3030-9032OS	303	D90 -32µm	Solvent, SFE or Thermal	S30300	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
304L-8022OS	304L	D80 -22µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
304L-8022US	304L	D80 -22µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	5	13.5	27
304L-8516CS	304L	D85 -16µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	pending	pending	pending
304L-8522CS	304L	D85 -22µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	pending	pending	pending
304L-8532CS	304L	D85 -32µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	pending	pending	pending
304L-9008AS	304L	D90 -8µm, PF-5F	Solvent, SFE or Thermal	S30403	Rounded	Water	3.0	6.0	8.0
304L-9015AS	304L	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S30403	Rounded	Water	3.0	6.0	15.0
304L-9016OS	304L	D90 -16µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
304L-9016US	304L	D90 -16µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	3.5	8.5	15.5
304L-9020AS	304L	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S30403	Rounded	Water	3.0	8.0	20.0
304L-9022OS	304L	D90 -22µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
304L-9022US	304L	D90 -22µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	4	11	21.5

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							d10	d50	d90
304L-9023AS	304L	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S30403	Rounded	Water	4.0	10.0	23.0
304L-9031US	304L	D90 -31µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	5	15	30.5
304L-9032OS	304L	D90 -32µm	Solvent, SFE or Thermal	S30403	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3100-9015AS	310	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S31000	Rounded	Water	3.0	6.0	15.0
3100-9020AS	310	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S31000	Rounded	Water	3.0	8.0	20.0
3100-9023AS	310	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S31000	Rounded	Water	4.0	10.0	23.0
310N-8022OS	310N	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
310N-9022OS	310N	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
310S-8022OS	310N	D80 -22µm	Solvent, SFE or Thermal	S31008	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
310S-9016OS	310S	D90 -16µm	Solvent, SFE or Thermal	S31008	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
310S-9022OS	310S	D90 -22µm	Solvent, SFE or Thermal	S31008	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
310S-9032OS	310S	D90 -32µm	Solvent, SFE or Thermal	S31008	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3140-8022US	314	D80 -22µm	Solvent, SFE or Thermal	S31400	Spherical	Gas	5	13.5	27
3140-9016US	314	D90 -16µm	Solvent, SFE or Thermal	S31400	Spherical	Gas	3.5	8.5	15.5
3140-9022US	314	D90 -22µm	Solvent, SFE or Thermal	S31400	Spherical	Gas	4	11	21.5
3140-9031US	314	D90 -31µm	Solvent, SFE or Thermal	S31400	Spherical	Gas	5	15	30.5
316D-8022OS	316 Duplex	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
316D-8022US	316 Duplex	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
316D-9016OS	316 Duplex	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
316D-9016US	316 Duplex	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
316D-9022OS	316 Duplex	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
316D-9022US	316 Duplex	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
316D-9031US	316 Duplex	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
316D-9032OS	316 Duplex	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
316L-8022OS	316L	D80 -22µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
316L-8022US	316L	D80 -22µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	5	13.5	27

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## De-bind Methods Available

AquaMIM® Water de-bind  
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Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
316L-8516CS	316L	D85 -16µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	pending	pending	pending
316L-8522CS	316L	D85 -22µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	pending	pending	pending
316L-8532CS	316L	D85 -32µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	pending	pending	pending
316L-9008AS	316L	D90 -8µm	Solvent, SFE or Thermal	S31603	Rounded	Water	3.0	6.0	8.0
316L-9015AS	316L	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S31603	Rounded	Water	3.0	6.0	15.0
316L-9016AS	316L	D90 -16µm, PF-13F	Solvent, SFE or Thermal	S31603	Spherical	Water	3.0	6.0	16.0
316L-9016OS	316L	D90 -16µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
316L-9016US	316L	D90 -16µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	3.5	8.5	15.5
1740-9016AS	316L	D90 -16µm, PF-13F	Solvent, SFE or Thermal	S31603	Rounded	Water			
316L-9020AS	316L	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S31603	Rounded	Water	3.0	8.0	20.0
316L-9022OS	316L	D90 -22µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
316L-9022US	316L	D90 -22µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	4	11	21.5
316L-9023AS	316L	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S31603	Rounded	Water	4.0	10.0	23.0
316L-9031US	316L	D90 -31µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	5	15	30.5
316L-9032OS	316L	D90 -32µm	Solvent, SFE or Thermal	S31603	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
317L-8022OS	317L	D80 -22µm	Solvent, SFE or Thermal	S31703	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
317L-9015AS	317L	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S31703	Rounded	Water	3.0	6.0	15.0
317L-9016OS	317L	D90 -16µm	Solvent, SFE or Thermal	S31703	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
317L-9020AS	317L	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S31703	Rounded	Water	3.0	8.0	20.0
317L-9022OS	317L	D90 -22µm	Solvent, SFE or Thermal	S31703	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
317L-9023AS	317L	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S31703	Rounded	Water	4.0	10.0	23.0
317L-9032OS	317L	D90 -32µm	Solvent, SFE or Thermal	S31703	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3290-8022OS	329	D80 -22µm	Solvent, SFE or Thermal	S32900	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
3290-9015AS	329	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S32900	Rounded	Water	3.0	6.0	15.0
3290-9016OS	329	D90 -16µm	Solvent, SFE or Thermal	S32900	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
3290-9020AS	329	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S32900	Rounded	Water	3.0	8.0	20.0

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RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
3290-9022OS	329	D90 -22µm	Solvent, SFE or Thermal	S32900	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
3290-9023AS	329	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S32900	Rounded	Water	4.0	10.0	23.0
3290-9032OS	329	D90 -32µm	Solvent, SFE or Thermal	S32900	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3470-8022US	347	D80 -22µm	Solvent, SFE or Thermal	S34700	Spherical	Gas	5	13.5	27
3470-9016US	347	D90 -16µm	Solvent, SFE or Thermal	S34700	Spherical	Gas	3.5	8.5	15.5
3470-9022US	347	D90 -22µm	Solvent, SFE or Thermal	S34700	Spherical	Gas	4	11	21.5
3470-9031US	347	D90 -31µm	Solvent, SFE or Thermal	S34700	Spherical	Gas	5	15	30.5
4100-8022OS	410	D80 -22µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4100-8022US	410	D80 -22µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	5	13.5	27
4100-9016OS	410	D90 -16µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4100-9016US	410	D90 -16µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	3.5	8.5	15.5
4100-9022OS	410	D90 -22µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4100-9022US	410	D90 -22µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	4	11	21.5
4100-9031US	410	D90 -31µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	5	15	30.5
4100-9032OS	410	D90 -32µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
410L-9015AS	410L	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S41000	Rounded	Water	3.0	6.0	15.0
410L-9020AS	410L	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S41000	Rounded	Water	3.0	8.0	20.0
410L-9022OS	410L	D90 -22µm	Solvent, SFE or Thermal	S41000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
410L-9023AS	410L	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S41000	Rounded	Water	4.0	10.0	23.0
4130-9015AS	4130	D90 -15µm, PF-10F	Solvent, SFE or Thermal	G41300	Rounded	Water	3.0	6.0	15.0
4130-9020AS	4130	D90 -20µm, PF-15F	Solvent, SFE or Thermal	G41300	Rounded	Water	3.0	8.0	20.0
4130-9023AS	4130	D90 -23µm, PF-20F	Solvent, SFE or Thermal	G41300	Rounded	Water	4.0	10.0	23.0
4140-8022OS	4140	D80 -22µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4140-8022US	4140 (SCM 440)	D80 -22µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	5	13.5	27
4140-9015AS	4140	D90 -15µm, PF-10F	Solvent, SFE or Thermal	G41400	Rounded	Water	3.0	6.0	13.0
4140-9016OS	4140	D90 -16µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0

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Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
4140-9016US	4140 (SCM 440)	D90 -16µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	3.5	8.5	15.5
4140-9022OS	4140	D90 -22µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4140-9022US	4140 (SCM 440)	D90 -22µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	4	11	21.5
4140-9031US	4140 (SCM 440)	D90 -31µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	5	15	30.5
4140-9032OS	4140	D90 -32µm	Solvent, SFE or Thermal	G41400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4150-8022OS	4150 (SCM 415)	D80 -22µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4150-8022US	4150 (SCM 415)	D80 -22µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	5	13.5	27
4150-9015AS	4150 (SCM 415)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	G41180	Rounded	Water	3.0	6.0	15.0
4150-9016OS	4150 (SCM 415)	D90 -16µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4150-9016US	4150 (SCM 415)	D90 -16µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	3.5	8.5	15.5
4150-9020AS	4150 (SCM 415)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	G41180	Rounded	Water	3.0	8.0	20.0
4150-9022OS	4150 (SCM 415)	D90 -22µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4150-9022US	4150 (SCM 415)	D90 -22µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	4	11	21.5
4150-9023AS	4150 (SCM 415)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	G41180	Rounded	Water	4.0	10.0	23.0
4150-9031US	4150 (SCM 415)	D90 -31µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	5	15	30.5
4150-9032OS	4150 (SCM 415)	D90 -32µm	Solvent, SFE or Thermal	G41180	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4180-8022OS	418	D80 -22µm	Solvent, SFE or Thermal	S41800	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4180-9016OS	418	D90 -16µm	Solvent, SFE or Thermal	S41800	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4180-9022OS	418	D90 -22µm	Solvent, SFE or Thermal	S41800	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4180-9032OS	418	D90 -32µm	Solvent, SFE or Thermal	S41800	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4200-8022OS	420	D80 -22µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4200-8022US	420	D80 -22µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	5	13.5	27
4200-8516CS	420	D85 -16µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	pending	pending	pending
4200-8522CS	420	D85 -22µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	pending	pending	pending
4200-8532CS	420	D85 -32µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	pending	pending	pending
4200-9016AS	420	D90 -16µm, PF-13F	Solvent, SFE or Thermal	S42001	Spherical	Water	3.0	6.0	15.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
4200-9015AS	420	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S42000	Rounded	Water	3.0	6.0	15.0
4200-9016OS	420	D90 -16µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4200-9016US	420	D90 -16µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	3.5	8.5	15.5
4200-9020AS	420	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S42000	Rounded	Water	3.0	8.0	20.0
4200-9022OS	420	D90 -22µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4200-9022US	420	D90 -22µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	4	11	21.5
4200-9023AS	420	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S42000	Rounded	Water	4.0	10.0	23.0
4200-9031US	420	D90 -31µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	5	15	30.5
4200-9032OS	420	D90 -32µm	Solvent, SFE or Thermal	S42000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4300-8022OS	430	D80 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4300-9016OS	430	D90 -16µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4300-9022OS	430	D90 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4300-9032OS	430	D90 -32µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
430L-8022OS	430L	D80 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
430L-8022US	430L	D80 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	5	13.5	27
430L-9016OS	430L	D90 -16µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
430L-9016US	430L	D90 -16µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	3.5	8.5	15.5
430L-9022OS	430L	D90 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
430L-9022US	430L	D90 -22µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4	11	21.5
430L-9023AS	430L	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S43000	Rounded	Water	4.0	10.0	23.0
430L-9031US	430L	D90 -31µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	5	15	30.5
430L-9032OS	430L	D90 -32µm	Solvent, SFE or Thermal	S43000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4340-8022OS	4340	D80 -22µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4340-8022US	4340	D80 -22µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	5	13.5	27
4340-9015AS	4340	D90 -15µm, PF-10F	Solvent, SFE or Thermal	G43400	Rounded	Water	3.0	6.0	15.0
4340-9016OS	4340	D90 -16µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0

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AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
4340-9016US	4340	D90 -16µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	3.5	8.5	15.5
4340-9020AS	4340	D90 -20µm, PF-15F	Solvent, SFE or Thermal	G43400	Rounded	Water	3.0	8.0	20.0
4340-9022OS	4340	D90 -22µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4340-9022US	4340	D90 -22µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	4	11	21.5
4340-9023AS	4340	D90 -23µm, PF-20F	Solvent, SFE or Thermal	G43400	Rounded	Water	4.0	10.0	23.0
4340-9031US	4340	D90 -31µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	5	15	30.5
4340-9032OS	4340	D90 -32µm	Solvent, SFE or Thermal	G43400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
434S-8022OS	434	D80 -22µm	Solvent, SFE or Thermal	S43400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
434S-9016OS	434	D90 -16µm	Solvent, SFE or Thermal	S43400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
434S-9022OS	434	D90 -22µm	Solvent, SFE or Thermal	S43400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
434S-9032OS	434	D90 -32µm	Solvent, SFE or Thermal	S43400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4365-8022OS	4365	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4365-9016OS	4365	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4365-9022OS	4365	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4365-9032OS	4365	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440B-8022OS	440B	D80 -22µm	Solvent, SFE or Thermal	S44003	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
440B-9016OS	440B	D90 -16µm	Solvent, SFE or Thermal	S44003	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
440B-9022OS	440B	D90 -22µm	Solvent, SFE or Thermal	S44003	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
440B-9032OS	440B	D90 -32µm	Solvent, SFE or Thermal	S44003	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440C-8022OS	440C	D80 -22µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
440C-8022US	440C	D80 -22µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	5	13.5	27
440C-8516CS	440C	D85 -16µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	pending	pending	pending
440C-8522CS	440C	D85 -22µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	pending	pending	pending
440C-8532CS	440C	D85 -32µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	pending	pending	pending
440C-9015AS	440C	D90 -15µm, PF-10F	Solvent, SFE or Thermal	S44004	Rounded	Water	3.0	6.0	15.0
440C-9016OS	440C	D90 -16µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
440C-9016US	440C	D90 -16µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	3.5	8.5	15.5
440C-9020AS	440C	D90 -20µm, PF-15F	Solvent, SFE or Thermal	S44004	Rounded	Water	3.0	8.0	20.0
440C-9022OS	440C	D90 -22µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
440C-9022US	440C	D90 -22µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	4	11	21.5
440C-9023AS	440C	D90 -23µm, PF-20F	Solvent, SFE or Thermal	S44004	Rounded	Water	4.0	10.0	23.0
440C-9031US	440C	D90 -31µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	5	15	30.5
440C-9032OS	440C	D90 -32µm	Solvent, SFE or Thermal	S44004	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440M-9015AS	440C-MOD	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
440M-9020AS	440C-MOD	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
440M-9023AS	440C-MOD	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
4650-9015AS	4650	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
4650-9020AS	4650	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
4650-9023AS	4650	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
8620-8022OS	8620	D80 -22µm	Solvent, SFE or Thermal	G86200	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
8620-9016OS	8620	D90 -16µm	Solvent, SFE or Thermal	G86200	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
8620-9022OS	8620	D90 -22µm	Solvent, SFE or Thermal	G86200	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
8620-9032OS	8620	D90 -32µm	Solvent, SFE or Thermal	G86200	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
904L-8022OS	904L	D80 -22µm	Solvent, SFE or Thermal	N08904	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
A286-8022OS	A286	D80 -22µm	Solvent, SFE or Thermal	S66286	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
A286-9022OS	A286	D90 -22µm	Solvent, SFE or Thermal	S66286	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
C212-8022OS	Co212 (type F-75)	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
C212-9016OS	Co212 (type F-75)	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
C212-9022OS	Co212 (type F-75)	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
C212-9032OS	Co212 (type F-75)	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
C502-8022OS	Co502	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
C502-9016OS	Co502	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
C502-9022OS	Co502	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
C502-9032OS	Co502	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
C900-8022OS	Co90	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
C900-9016OS	Co90	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
C900-9022OS	Co90	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
C900-9032OS	Co90	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CA10-8022OS	Cu10Al	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
CA10-9016OS	Cu10Al	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
CA10-9022OS	Cu10Al	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
CA10-9032OS	Cu10Al	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CCM0-8516CS	CCM © (BioDur™)	D85 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CCM0-8522CS	CCM © (BioDur™)	D85 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CCM0-8532CS	CCM © (BioDur™)	D85 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CCMP-8516CS	CCM Plus™ (BioDur™)	D85 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CCMP-8522CS	CCM Plus™ (BioDur™)	D85 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CCMP-8532CS	CCM Plus™ (BioDur™)	D85 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	pending	pending	pending
CFV0-8022OS	Co 49Fe 2V	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
CFV0-9016OS	Co 49Fe 2V	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
CFV0-9022OS	Co 49Fe 2V	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
CFV0-9032OS	Co 49Fe 2V	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CNCA-8022US	Co Ni33 Cr21 Al8 Y.5	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
CNCA-9016US	Co Ni33 Cr21 Al8 Y.5	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
CNCA-9022US	Co Ni33 Cr21 Al8 Y.5	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
CNCA-9031US	Co Ni33 Cr21 Al8 Y.5	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
CNSP-8022US	CuNiSnP	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
CNSP-9016US	CuNiSnP	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5

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# RYER, Inc.

Developer, Manufacturer and Supplier of  
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Metal Injection Molding Industry.

## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
CNSP-9022US	CuNiSnP	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
CNSP-9031US	CuNiSnP	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
CS10-8022OS	Cu10Sn	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
CS10-9016OS	Cu10Sn	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
CS10-9022OS	Cu10Sn	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
CS10-9032OS	Cu10Sn	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CS15-8022OS	Cu15Sn	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
CS15-9016OS	Cu15Sn	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
CS15-9022OS	Cu15Sn	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
CS15-9032OS	Cu15Sn	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CUEL-8022US	Cu-Elec	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
CUEL-9016US	Cu-Elec	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
CUEL-9022US	Cu-Elec	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
CUEL-9031US	Cu-Elec	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
CUMI-8022US	Cu-MIM (Copper)	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
CUMI-9016US	Cu-MIM (Copper)	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
CUMI-9022US	Cu-MIM (Copper)	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
CUMI-9031US	Cu-MIM (Copper)	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
CV00-9015AS	49Co 2V	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
CV00-9020AS	49Co 2V	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
CV00-9023AS	49Co 2V	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
D200-8022OS	D-2	D80 -22µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
D200-8022US	D-2	D80 -22µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	5	13.5	27
D200-9015AS	D-2 (SKD-11)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	T30402	Rounded	Water	3.0	6.0	15.0
D200-9016OS	D-2	D90 -16µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
D200-9016US	D-2	D90 -16µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	3.5	8.5	15.5

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
D200-9020AS	D-2 (SKD-11)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	T30402	Rounded	Water	3.0	8.0	20.0
D200-9022OS	D-2	D90 -22µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
D200-9022US	D-2	D90 -22µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	4	11	21.5
D200-9023AS	D-2 (SKD-11)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	T30402	Rounded	Water	4.0	10.0	23.0
D200-9031US	D-2	D90 -31µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	5	15	30.5
D200-9032OS	D-2	D90 -32µm	Solvent, SFE or Thermal	T30402	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
EN1A-9022OS	EN1A	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
EN1A-9023AS	EN1A	D90 -23µm, PF20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
EN19A-9022OS	42CrMo4 (B.S. EN19A)	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
EN19A-9023AS	SCM 415FN (B.S. EN19A)	D90 -23µm, PF20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
F150-8022US	F-15	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
F150-9016US	F-15	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
F150-9022US	F-15	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
F150-9031US	F-15	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FC00-9015AS	50Fe 50Co	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FC00-9020AS	50Fe 50Co	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FC00-9023AS	50Fe 50Co	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FC08-8022US	Fe 8Cr	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FC08-9016US	Fe 8Cr	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FC08-9022US	Fe 8Cr	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FC08-9031US	Fe 8Cr	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FCAY-8022US	FeCrAlY	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FCAY-9016US	FeCrAlY	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FCAY-9022US	FeCrAlY	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FCAY-9031US	FeCrAlY	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FCMM-8022US	FeCr11Mn3Mo	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27

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							d10	d50	d90
FCMM-9016US	FeCr11Mn3Mo	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FCMM-9022US	FeCr11Mn3Mo	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FCMM-9031US	FeCr11Mn3Mo	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FCV0-8022US	FeCoV (Permendur)	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FCV0-9016US	FeCoV (Permendur)	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FCV0-9022US	FeCoV (Permendur)	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FCV0-9031US	FeCoV (Permendur)	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FESA-8022US	FeSiAl	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FESA-9016US	FeSiAl	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FESA-9022US	FeSiAl	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FESA-9031US	FeSiAl	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FN02-9021MS	FN02, MIM-2200 (Fe 2%Ni)	D90 -21µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0	7.0	21.0
FN02-9015AS	Fe 2%Ni	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FN02-9020AS	Fe 2%Ni	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FN02-9017MS	FN02, MIM-4605 (Fe 2%Ni)	D90 -17µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.0	6.4	17.4
FN02-9023AS	Fe 2%Ni	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FN07-9020MS	FN7.5, MIM-2700 (Fe 7.5Ni)	D90 -20µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0	7.0	20.0
FN08-9020MS	FN08 (Fe 8%Ni)	D90 -20µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0	7.0	20.0
FN08-9015AS	Fe 8%Ni	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FN08-9020AS	Fe 8%Ni	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FN08-9023AS	Fe 8%Ni	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FN30-8022US	Fe 30%Ni	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FN30-9016US	Fe 30%Ni	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FN30-9022US	Fe 30%Ni	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FN30-9031US	Fe 30%Ni	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FN36-9015AS	Fe 36%Ni	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
FN36-9020AS	Fe 36%Ni	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FN36-9023AS	Fe 36%Ni	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FN47-9015AS	Fe 47%Ni	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FN47-9020AS	Fe 47%Ni	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FN47-9023AS	Fe 47%Ni	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FN50-9015AS	Fe 50%Ni	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FN50-9020AS	Fe 50%Ni	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FN50-9023AS	Fe 50%Ni	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FNM0-8022US	Fe 30%Ni 6Mn	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
FNM0-9016US	Fe 30%Ni 6Mn	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
FNM0-9022US	Fe 30%Ni 6Mn	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
FNM0-9031US	Fe 30%Ni 6Mn	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
FS03-9015AS	Fe 3%Si (PIS30)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FS03-9020AS	Fe 3%Si (PIS30)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FS03-9023AS	Fe 3%Si (PIS30)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FS05-9015AS	Fe 5.5Si (PIS55)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FS05-9020AS	Fe 5.5Si (PIS55)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FS05-9023AS	Fe 5.5Si (PIS55)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
FS06-9015AS	Fe 6.5Si (PIS65)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
FS06-9020AS	Fe 6.5Si (PIS65)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
FS06-9023AS	Fe 6.5Si (PIS65)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
H110-9022OS	H-11	D90 -22µm	Solvent, SFE or Thermal	T20811	Rounded	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
H130-8022OS	H-13	D80 -22µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
H130-8516CS	H-13	D85 -16µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	pending	pending	pending
H130-8522CS	H-13	D85 -22µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	pending	pending	pending
H130-8532CS	H-13	D85 -32µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	pending	pending	pending

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Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
H130-9016AS	H-13 (SKD-61)	D90 -16µm, PF-13F	Solvent, SFE or Thermal	T20813	Spherical	Water	3.0	6.0	16.0
H130-9016OS	H-13	D90 -16µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
H130-9022OS	H-13	D90 -22µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
H130-9032OS	H-13	D90 -32µm	Solvent, SFE or Thermal	T20813	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
H250-8022US	Haynes 25	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
H250-9016US	Haynes 25	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
H250-9022US	Haynes 25	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
H250-9031US	Haynes 25	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
HC22-9015AS	Hastelloy® C22	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
HC22-9020AS	Hastelloy® C22	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
HC22-9023AS	Hastelloy® C22	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
HC27-9015AS	Hastelloy® C276	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
HC27-9020AS	Hastelloy® C276	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
HC27-9023AS	Hastelloy® C276	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
HCCU-8022OS	HC Cu	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
HCCU-9016OS	HC Cu	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
HCCU-9022OS	HC Cu	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
HCCU-9032OS	HC Cu	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
HK30-8022US	HK-30	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
HK30-9015AS	HK-30	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
HK30-9016US	HK-30	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
HK30-9020AS	HK-30	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
HK30-9022US	HK-30	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
HK30-9023AS	HK-30	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
HK30-9031US	HK-30	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
HM80-8022OS	Carpenter HyMu80 ®	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0

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Custom and Standard Feedstocks for the  
Metal Injection Molding Industry.

## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
HM80-9016OS	Carpenter HyMu80 ®	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
HM80-9022OS	Carpenter HyMu80 ®	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
HM80-9032OS	Carpenter HyMu80 ®	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
HX00-8022OS	H - X	D80 -22µm	Solvent, SFE or Thermal	N06002	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
HX00-9016OS	H - X	D90 -16µm	Solvent, SFE or Thermal	N06002	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
HX00-9022OS	H - X	D90 -22µm	Solvent, SFE or Thermal	N06002	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
HX00-9032OS	H - X	D90 -32µm	Solvent, SFE or Thermal	N06002	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
INVA-8516CS	Invar	D85 -16µm	Solvent, SFE or Thermal	K93601	Spherical	Gas	pending	pending	pending
INVA-8522CS	Invar	D85 -22µm	Solvent, SFE or Thermal	K93601	Spherical	Gas	pending	pending	pending
INVA-8532CS	Invar	D85 -32µm	Solvent, SFE or Thermal	K93601	Spherical	Gas	pending	pending	pending
INVA-3600MS	Invar 36	D90 -16µm	Solvent, SFE or Thermal	K93600	Rounded	Mixed	3.3	6.2	16.5
INVA-4200MS	Invar 42	D90 -16µm	Solvent, SFE or Thermal	K94200	Rounded	Mixed	3.3	6.2	15.9
KF15-8022US	Kovar™ F15	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
KF15-8516CS	Kovar™ F15	D85 -16µm	Solvent, SFE or Thermal	K94610	Spherical	Gas	pending	pending	pending
KF15-8522CS	Kovar™ F15	D85 -22µm	Solvent, SFE or Thermal	K94610	Spherical	Gas	pending	pending	pending
KF15-8532CS	Kovar™ F15	D85 -32µm	Solvent, SFE or Thermal	K94610	Spherical	Gas	pending	pending	pending
KF15-9015AS	Kovar™ F15	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
KF15-9016US	Kovar™ F15	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
KF15-9020AS	Kovar™ F15	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
KF15-9022OS	Kovar™ F15	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
KF15-9022US	Kovar™ F15	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
KF15-9023AS	Kovar™ F15	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
KF15-9031US	Kovar™ F15	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
M200-8022OS	M-2	D80 -22µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
M200-8022US	M-2	D80 -22µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	5	13.5	27
M200-9015AS	M-2 (SKH-51)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	T11302	Rounded	Water	3.0	6.0	15.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
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Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
M200-9016OS	M-2	D90 -16µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
M200-9016US	M-2	D90 -16µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	3.5	8.5	15.5
M200-9020AS	M-2 (SKH-51)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	T11302	Rounded	Water	3.0	8.0	20.0
M200-9022OS	M-2	D90 -22µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
M200-9022US	M-2	D90 -22µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	4	11	21.5
M200-9023AS	M-2 (SKH-51)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	T11302	Rounded	Water	4.0	10.0	23.0
M200-9031US	M-2	D90 -31µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	5	15	30.5
M200-9032OS	M-2	D90 -32µm	Solvent, SFE or Thermal	T11302	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
M400-8516CS	M-4	D85 -16µm	Solvent, SFE or Thermal	T11304	Spherical	Gas	pending	pending	pending
M400-8522CS	M-4	D85 -22µm	Solvent, SFE or Thermal	T11304	Spherical	Gas	pending	pending	pending
M400-8532CS	M-4	D85 -32µm	Solvent, SFE or Thermal	T11304	Spherical	Gas	pending	pending	pending
M500-9023AS	M-50	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
MP35-9023AS	MP-35N-2	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
N20C-9015AS	Ni-20Cr	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
N20C-9020AS	Ni-20Cr	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
N20C-9023AS	Ni-20Cr	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
N625-8022OS	Ni 625	D80 -22µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
N625-8516CS	Ni 625	D85 -16µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	pending	pending	pending
N625-8522CS	Ni 625	D85 -22µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	pending	pending	pending
N625-8532CS	Ni 625	D85 -32µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	pending	pending	pending
N625-9015AS	Inconel™ 625	D90 -15µm, PF-10F	Solvent, SFE or Thermal	N06625	Rounded	Water	3.0	6.0	15.0
N625-9016OS	Ni 625	D90 -16µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
N625-9020AS	Inconel™ 625	D90 -20µm, PF-15F	Solvent, SFE or Thermal	N06625	Rounded	Water	3.0	8.0	20.0
N625-9022OS	Ni 625	D90 -22µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
N625-9023AS	Inconel™ 625	D90 -23µm, PF-20F	Solvent, SFE or Thermal	N06625	Rounded	Water	4.0	10.0	23.0
N625-9032OS	Ni 625	D90 -32µm	Solvent, SFE or Thermal	N06625	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0

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AquaMIM® Water de-bind  
Solvent de-bind  
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Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
N713-8022US	Inconel™ 713	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
N713-9016US	Inconel™ 713	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
N713-9022US	Inconel™ 713	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
N713-9031US	Inconel™ 713	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
N718-8022OS	Ni 718	D80 -22µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
N718-8022US	Inconel™ 718	D80 -22µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	5	13.5	27
N718-9015AS	Inconel™ 718	D90 -15µm, PF-10F	Solvent, SFE or Thermal	N07718	Rounded	Water	3.0	6.0	15.0
N718-9016OS	Ni 718	D90 -16µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
N718-9016US	Inconel™ 718	D90 -16µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	3.5	8.5	15.5
N718-9020AS	Inconel™ 718	D90 -20µm, PF-15F	Solvent, SFE or Thermal	N07718	Rounded	Water	3.0	8.0	20.0
N718-9022OS	Ni 718	D90 -22µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
N718-9022US	Inconel™ 718	D90 -22µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	4	11	21.5
N718-9023AS	Inconel™ 718	D90 -23µm, PF-20F	Solvent, SFE or Thermal	N07718	Rounded	Water	4.0	10.0	23.0
N718-9031US	Inconel™ 718	D90 -31µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	5	15	30.5
N718-9032OS	Ni 718	D90 -32µm	Solvent, SFE or Thermal	N07718	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
NCCA-8022US	NiCoCrAlY	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
NCCA-9016US	NiCoCrAlY	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
NCCA-9022US	NiCoCrAlY	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
NCCA-9031US	NiCoCrAlY	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
NI60-8022OS	Nitronic 60	D80 -22µm	Solvent, SFE or Thermal	S21800	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
NI60-9016OS	Nitronic 60	D90 -16µm	Solvent, SFE or Thermal	S21800	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
NI60-9022OS	Nitronic 60	D90 -22µm	Solvent, SFE or Thermal	S21800	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
NI60-9032OS	Nitronic 60	D90 -32µm	Solvent, SFE or Thermal	S21800	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
NI90-8022OS	Ni 90	D80 -22µm	Solvent, SFE or Thermal	N07090	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
NI90-8022US	Nimonic 90	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	13.5	27
NI90-9015AS	Nimonic 90	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
NI90-9016OS	Ni 90	D90 -16µm	Solvent, SFE or Thermal	N07090	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
NI90-9016US	Nimonic 90	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5	8.5	15.5
NI90-9020AS	Nimonic 90	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
NI90-9022OS	Ni 90	D90 -22µm	Solvent, SFE or Thermal	N07090	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
NI90-9022US	Nimonic 90	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4	11	21.5
NI90-9023AS	Nimonic 90	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
NI90-9031US	Nimonic 90	D90 -31µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	5	15	30.5
NI90-9032OS	Ni 90	D90 -32µm	Solvent, SFE or Thermal	N07090	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
OFHC-8022OS	OFHC Cu	D80 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
OFHC-9016OS	OFHC Cu	D90 -16µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
OFHC-9022OS	OFHC Cu	D90 -22µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
OFHC-9032OS	OFHC Cu	D90 -32µm	Solvent, SFE or Thermal	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
PC78-9015AS	PC-78 (5%Mo)	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
PC78-9020AS	PC-78 (5%Mo)	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
PC78-9023AS	PC-78 (5%Mo)	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
S200-8022OS	S-2	D80 -22µm	Solvent, SFE or Thermal	T41902	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
S200-9016OS	S-2	D90 -16µm	Solvent, SFE or Thermal	T41902	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
S200-9022OS	S-2	D90 -22µm	Solvent, SFE or Thermal	T41902	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
S200-9032OS	S-2	D90 -32µm	Solvent, SFE or Thermal	T41902	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
S600-9015AS	Stellite™ 6	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
S600-9020AS	Stellite™ 6	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
S600-9023AS	Stellite™ 6	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
SEND-9015AS	Sendust	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0
SEND-9020AS	Sendust	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
SEND-9023AS	Sendust	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
SKH5-9015AS	SKH-57	D90 -15µm, PF-10F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	6.0	15.0

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Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
SKH5-9020AS	SKH-57	D90 -20µm, PF-15F	Solvent, SFE or Thermal	n/a	Rounded	Water	3.0	8.0	20.0
SKH5-9023AS	SKH-57	D90 -23µm, PF-20F	Solvent, SFE or Thermal	n/a	Rounded	Water	4.0	10.0	23.0
T150-8022OS	T-15	D80 -22µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
T150-8022US	T-15	D80 -22µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	5	13.5	27
T150-8516CS	T-15	D85 -16µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	pending	pending	pending
T150-8522CS	T-15	D85 -22µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	pending	pending	pending
T150-8532CS	T-15	D85 -32µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	pending	pending	pending
T150-9016OS	T-15	D90 -16µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
T150-9016US	T-15	D90 -16µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	3.5	8.5	15.5
T150-9022OS	T-15	D90 -22µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
T150-9022US	T-15	D90 -22µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	4	11	21.5
T150-9031US	T-15	D90 -31µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	5	15	30.5
T150-9032OS	T-15	D90 -32µm	Solvent, SFE or Thermal	T12015	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
Ti64-0045FS	6Al - 4V Titanium	-45µm	Solvent, SFE or Thermal		Spherical	Plasma			
CPTi-0045FS	CP Titanium	-45µm	Solvent, SFE or Thermal		Spherical	Plasma			
1550-8022OA	15-5PH	D80 -22µm	Water / AquaMIM®	S15500	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1550-9016OA	15-5PH	D90 -16µm	Water / AquaMIM®	S15500	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1550-9022OA	15-5PH	D90 -22µm	Water / AquaMIM®	S15500	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1550-9032OA	15-5PH	D90 -32µm	Water / AquaMIM®	S15500	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
1740-8022OA	17-4PH	D80 -22µm	Water / AquaMIM®	S17400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1740-8022UA	17-4PH	D80 -22µm	Water / AquaMIM®	S17400	Spherical	Gas	5	13.5	27
1740-8516CA	17-4PH	D85 -16µm	Water / AquaMIM®	S17400	Spherical	Gas	pending	pending	pending
1740-8522CA	17-4PH	D85 -22µm	Water / AquaMIM®	S17400	Spherical	Gas	pending	pending	pending
1740-8532CA	17-4PH	D85 -32µm	Water / AquaMIM®	S17400	Spherical	Gas	pending	pending	pending



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RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
1740-9008AA	17-4PH	D90 -8µm, PF-5F	Water / AquaMIM®	S17400	Rounded	Water	3.0	6.0	8.0
1740-9015AA	17-4PH	D90 -15µm, PF-10F	Water / AquaMIM®	S17400	Rounded	Water	3.0	6.0	15.0
1740-9016OA	17-4PH	D90 -16µm	Water / AquaMIM®	S17400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1740-9016UA	17-4PH	D90 -16µm	Water / AquaMIM®	S17400	Spherical	Gas	3.5	8.5	15.5
1740-9016AA	17-4PH	D90 -16µm, PF-13F	Water / AquaMIM®	S17400	Rounded	Water			
1740-9020AA	17-4PH	D90 -20µm, PF-15F	Water / AquaMIM®	S17400	Rounded	Water	3.0	8.0	20.0
1740-9022OA	17-4PH	D90 -22µm	Water / AquaMIM®	S17400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1740-9022UA	17-4PH	D90 -22µm	Water / AquaMIM®	S17400	Spherical	Gas	4	11	21.5
1740-9023AA	17-4PH	D90 -23µm, PF-20F	Water / AquaMIM®	S17400	Rounded	Water	4.0	10.0	23.0
1740-9031UA	17-4PH	D90 -31µm	Water / AquaMIM®	S17400	Spherical	Gas	5	15	30.5
1740-9032OA	17-4PH	D90 -32µm	Water / AquaMIM®	S17400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
1770-8022OA	17-7PH	D80 -22µm	Water / AquaMIM®	S17700	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
1770-9016OA	17-7PH	D90 -16µm	Water / AquaMIM®	S17700	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
1770-9022OA	17-7PH	D90 -22µm	Water / AquaMIM®	S17700	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
1770-9032OA	17-7PH	D90 -32µm	Water / AquaMIM®	S17700	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
310S-8022OA	310S	D80 -22µm	Water / AquaMIM®	S31008	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
310S-9016OA	310S	D90 -16µm	Water / AquaMIM®	S31008	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
310S-9022OA	310S	D90 -22µm	Water / AquaMIM®	S31008	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
310S-9032OA	310S	D90 -32µm	Water / AquaMIM®	S31008	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3030-8022OA	303	D80 -22µm	Water / AquaMIM®	S30300	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
3030-9016OA	303	D90 -16µm	Water / AquaMIM®	S30300	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
3030-9022OA	303	D90 -22µm	Water / AquaMIM®	S30300	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
3030-9032OA	303	D90 -32µm	Water / AquaMIM®	S30300	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
304L-8022OA	304L	D80 -22µm	Water / AquaMIM®	S30403	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
304L-8022UA	304L	D80 -22µm	Water / AquaMIM®	S30403	Spherical	Gas	5	13.5	27
304L-8516CA	304L	D85 -16µm	Water / AquaMIM®	S30403	Spherical	Gas	pending	pending	pending

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
304L-8522CA	304L	D85 -22µm	Water / AquaMIM®	S30403	Spherical	Gas	pending	pending	pending
304L-8532CA	304L	D85 -32µm	Water / AquaMIM®	S30403	Spherical	Gas	pending	pending	pending
304L-9008AA	304L	D90 -8µm, PF-5F	Water / AquaMIM®	S30403	Rounded	Water	3.0	6.0	8.0
304L-9015AA	304L	D90 -15µm, PF-10F	Water / AquaMIM®	S30403	Rounded	Water	3.0	6.0	15.0
304L-9016OA	304L	D90 -16µm	Water / AquaMIM®	S30403	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
304L-9016UA	304L	D90 -16µm	Water / AquaMIM®	S30403	Spherical	Gas	3.5	8.5	15.5
304L-9020AA	304L	D90 -20µm, PF-15F	Water / AquaMIM®	S30403	Rounded	Water	3.0	8.0	20.0
304L-9022OA	304L	D90 -22µm	Water / AquaMIM®	S30403	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
304L-9022UA	304L	D90 -22µm	Water / AquaMIM®	S30403	Spherical	Gas	4	11	21.5
304L-9023AA	304L	D90 -23µm, PF-20F	Water / AquaMIM®	S30403	Rounded	Water	4.0	10.0	23.0
304L-9031UA	304L	D90 -31µm	Water / AquaMIM®	S30403	Spherical	Gas	5	15	30.5
304L-9032OA	304L	D90 -32µm	Water / AquaMIM®	S30403	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3100-9015AA	310	D90 -15µm, PF-10F	Water / AquaMIM®	S31000	Rounded	Water	3.0	6.0	15.0
3100-9020AA	310	D90 -20µm, PF-15F	Water / AquaMIM®	S31000	Rounded	Water	3.0	8.0	20.0
3100-9023AA	310	D90 -23µm, PF-20F	Water / AquaMIM®	S31000	Rounded	Water	4.0	10.0	23.0
310N-8022OA	310N	D80 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
310N-9022OA	310N	D90 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
3140-8022UA	314	D80 -22µm	Water / AquaMIM®	S31400	Spherical	Gas	5	13.5	27
3140-9016UA	314	D90 -16µm	Water / AquaMIM®	S31400	Spherical	Gas	3.5	8.5	15.5
3140-9022UA	314	D90 -22µm	Water / AquaMIM®	S31400	Spherical	Gas	4	11	21.5
3140-9031UA	314	D90 -31µm	Water / AquaMIM®	S31400	Spherical	Gas	5	15	30.5
316D-8022OA	316 Duplex	D80 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
316D-8022UA	316 Duplex	D80 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	5	13.5	27
316D-9016OA	316 Duplex	D90 -16µm	Water / AquaMIM®	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
316D-9016UA	316 Duplex	D90 -16µm	Water / AquaMIM®	n/a	Spherical	Gas	3.5	8.5	15.5
316D-9022OA	316 Duplex	D90 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
316D-9022UA	316 Duplex	D90 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4	11	21.5
316D-9031UA	316 Duplex	D90 -31µm	Water / AquaMIM®	n/a	Spherical	Gas	5	15	30.5
316D-9032OA	316 Duplex	D90 -32µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
316L-8022OA	316L	D90 -22µm	Water / AquaMIM®	S31603	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
316L-8022UA	316L	D80 -22µm	Water / AquaMIM®	S31603	Spherical	Gas	5	13.5	27
316L-8516CA	316L	D85 -16µm	Water / AquaMIM®	S31603	Spherical	Gas	pending	pending	pending
316L-8522CA	316L	D85 -22µm	Water / AquaMIM®	S31603	Spherical	Gas	pending	pending	pending
316L-8532CA	316L	D85 -32µm	Water / AquaMIM®	S31603	Spherical	Gas	pending	pending	pending
316L-9008AA	316L	D90 -8µm, PF-5F	Water / AquaMIM®	S31603	Rounded	Water	3.0	6.0	8.0
316L-9015AA	316L	D90 -15µm, PF-10F	Water / AquaMIM®	S31603	Rounded	Water	3.0	6.0	15.0
316L-9016OA	316L	D90 -16µm	Water / AquaMIM®	S31603	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
316L-9016UA	316L	D90 -16µm	Water / AquaMIM®	S31603	Spherical	Gas	3.5	8.5	15.5
316L-9016AA	316L	D90 -16µm, PF-13F	Water / AquaMIM®	S31603	Rounded	Water			
316L-9020AA	316L	D90 -20µm, PF-15F	Water / AquaMIM®	S31603	Rounded	Water	3.0	8.0	20.0
316L-9022OA	316L	D90 -22µm	Water / AquaMIM®	S31603	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
316L-9022UA	316L	D90 -22µm	Water / AquaMIM®	S31603	Spherical	Gas	4	11	21.5
316L-9023AA	316L	D90 -23µm, PF-20F	Water / AquaMIM®	S31603	Rounded	Water	4.0	10.0	23.0
316L-9031UA	316L	D90 -31µm	Water / AquaMIM®	S31603	Spherical	Gas	5	15	30.5
316L-9032OA	316L	D90 -32µm	Water / AquaMIM®	S31603	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
317L-8022OA	317L	D80 -22µm	Water / AquaMIM®	S31703	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
317L-9015AA	317L	D90 -15µm, PF-10F	Water / AquaMIM®	S31703	Rounded	Water	3.0	6.0	15.0
317L-9016OA	317L	D90 -16µm	Water / AquaMIM®	S31703	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
317L-9020AA	317L	D90 -20µm, PF-15F	Water / AquaMIM®	S31703	Rounded	Water	3.0	8.0	20.0
317L-9022OA	317L	D90 -22µm	Water / AquaMIM®	S31703	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
317L-9023AA	317L	D90 -23µm, PF-20F	Water / AquaMIM®	S31703	Rounded	Water	4.0	10.0	23.0
317L-9032OA	317L	D90 -32µm	Water / AquaMIM®	S31703	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0

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AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
3290-8022OA	329	D80 -22µm	Water / AquaMIM®	S32900	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
3290-9015AA	329	D90 -15µm, PF-10F	Water / AquaMIM®	S32900	Rounded	Water	3.0	6.0	15.0
3290-9016OA	329	D90 -16µm	Water / AquaMIM®	S32900	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
3290-9020AA	329	D90 -20µm, PF-15F	Water / AquaMIM®	S32900	Rounded	Water	3.0	8.0	20.0
3290-9022OA	329	D90 -22µm	Water / AquaMIM®	S32900	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
3290-9023AA	329	D90 -23µm, PF-20F	Water / AquaMIM®	S32900	Rounded	Water	4.0	10.0	23.0
3290-9032OA	329	D90 -32µm	Water / AquaMIM®	S32900	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
3470-8022UA	347	D80 -22µm	Water / AquaMIM®	S34700	Spherical	Gas	5	13.5	27
3470-9016UA	347	D90 -16µm	Water / AquaMIM®	S34700	Spherical	Gas	3.5	8.5	15.5
3470-9022UA	347	D90 -22µm	Water / AquaMIM®	S34700	Spherical	Gas	4	11	21.5
3470-9031UA	347	D90 -31µm	Water / AquaMIM®	S34700	Spherical	Gas	5	15	30.5
4100-8022OA	410	D80 -22µm	Water / AquaMIM®	S41000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4100-8022UA	410	D80 -22µm	Water / AquaMIM®	S41000	Spherical	Gas	5	13.5	27
4100-9016OA	410	D90 -16µm	Water / AquaMIM®	S41000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4100-9016UA	410	D90 -16µm	Water / AquaMIM®	S41000	Spherical	Gas	3.5	8.5	15.5
4100-9022OA	410	D90 -22µm	Water / AquaMIM®	S41000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4100-9022UA	410	D90 -22µm	Water / AquaMIM®	S41000	Spherical	Gas	4	11	21.5
4100-9031UA	410	D90 -31µm	Water / AquaMIM®	S41000	Spherical	Gas	5	15	30.5
4100-9032OA	410	D90 -32µm	Water / AquaMIM®	S41000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
410L-9015AA	410L	D90 -15µm, PF-10F	Water / AquaMIM®	S41000	Rounded	Water	3.0	6.0	15.0
410L-9020AA	410L	D90 -20µm, PF-15F	Water / AquaMIM®	S41000	Rounded	Water	3.0	8.0	20.0
410L-9023AA	410L	D90 -23µm, PF-20F	Water / AquaMIM®	S41000	Rounded	Water	4.0	10.0	23.0
4180-8022OA	418	D80 -22µm	Water / AquaMIM®	S41800	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4180-9016OA	418	D90 -16µm	Water / AquaMIM®	S41800	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4180-9022OA	418	D90 -22µm	Water / AquaMIM®	S41800	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4180-9032OA	418	D90 -32µm	Water / AquaMIM®	S41800	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0

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AquaMIM® Water de-bind  
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Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
4200-8022OA	420	D80 -22µm	Water / AquaMIM®	S42000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4200-8022UA	420	D80 -22µm	Water / AquaMIM®	S42000	Spherical	Gas	5	13.5	27
4200-8516CA	420	D85 -16µm	Water / AquaMIM®	S42000	Spherical	Gas	pending	pending	pending
4200-8522CA	420	D85 -22µm	Water / AquaMIM®	S42000	Spherical	Gas	pending	pending	pending
4200-8532CA	420	D85 -32µm	Water / AquaMIM®	S42000	Spherical	Gas	pending	pending	pending
4200-9015AA	420	D90 -15µm, PF-10F	Water / AquaMIM®	S42000	Rounded	Water	3.0	6.0	15.0
4200-9016OA	420	D90 -16µm	Water / AquaMIM®	S42000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4200-9016UA	420	D90 -16µm	Water / AquaMIM®	S42000	Spherical	Gas	3.5	8.5	15.5
4200-9020AA	420	D90 -20µm, PF-15F	Water / AquaMIM®	S42000	Rounded	Water	3.0	8.0	20.0
4200-9022OA	420	D90 -22µm	Water / AquaMIM®	S42000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4200-9022UA	420	D90 -22µm	Water / AquaMIM®	S42000	Spherical	Gas	4	11	21.5
4200-9023AA	420	D90 -23µm, PF-20F	Water / AquaMIM®	S42000	Rounded	Water	4.0	10.0	23.0
4200-9031UA	420	D90 -31µm	Water / AquaMIM®	S42000	Spherical	Gas	5	15	30.5
4200-9032OA	420	D90 -32µm	Water / AquaMIM®	S42000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
4300-8022OA	430	D80 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
4300-9016OA	430	D90 -16µm	Water / AquaMIM®	S43000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
4300-9022OA	430	D90 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
4300-9032OA	430	D90 -32µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
430L-8022OA	430L	D80 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
430L-8022UA	430L	D80 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	5	13.5	27
430L-9016OA	430L	D90 -16µm	Water / AquaMIM®	S43000	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
430L-9016UA	430L	D90 -16µm	Water / AquaMIM®	S43000	Spherical	Gas	3.5	8.5	15.5
430L-9022OA	430L	D90 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
430L-9022UA	430L	D90 -22µm	Water / AquaMIM®	S43000	Spherical	Gas	4	11	21.5
430L-9031UA	430L	D90 -31µm	Water / AquaMIM®	S43000	Spherical	Gas	5	15	30.5
430L-9032OA	430L	D90 -32µm	Water / AquaMIM®	S43000	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0

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							d10	d50	d90
434S-8022OA	434	D80 -22µm	Water / AquaMIM®	S43400	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
434S-9016OA	434	D90 -16µm	Water / AquaMIM®	S43400	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
434S-9022OA	434	D90 -22µm	Water / AquaMIM®	S43400	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
434S-9032OA	434	D90 -32µm	Water / AquaMIM®	S43400	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440B-8022OA	440B	D80 -22µm	Water / AquaMIM®	S44003	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
440B-9016OA	440B	D90 -16µm	Water / AquaMIM®	S44003	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
440B-9022OA	440B	D90 -22µm	Water / AquaMIM®	S44003	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
440B-9032OA	440B	D90 -32µm	Water / AquaMIM®	S44003	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440C-8022OA	440C	D80 -22µm	Water / AquaMIM®	S44004	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0
440C-8022UA	440C	D80 -22µm	Water / AquaMIM®	S44004	Spherical	Gas	5	13.5	27
440C-8516CA	440C	D85 -16µm	Water / AquaMIM®	S44004	Spherical	Gas	pending	pending	pending
440C-8522CA	440C	D85 -22µm	Water / AquaMIM®	S44004	Spherical	Gas	pending	pending	pending
440C-8532CA	440C	D85 -32µm	Water / AquaMIM®	S44004	Spherical	Gas	pending	pending	pending
440C-9015AA	440C	D90 -15µm, PF-10F	Water / AquaMIM®	S44004	Rounded	Water	3.0	6.0	15.0
440C-9016OA	440C	D90 -16µm	Water / AquaMIM®	S44004	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
440C-9016UA	440C	D90 -16µm	Water / AquaMIM®	S44004	Spherical	Gas	3.5	8.5	15.5
440C-9020AA	440C	D90 -20µm, PF-15F	Water / AquaMIM®	S44004	Rounded	Water	3.0	8.0	20.0
440C-9022OA	440C	D90 -22µm	Water / AquaMIM®	S44004	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
440C-9022UA	440C	D90 -22µm	Water / AquaMIM®	S44004	Spherical	Gas	4	11	21.5
440C-9023AA	440C	D90 -23µm, PF-20F	Water / AquaMIM®	S44004	Rounded	Water	4.0	10.0	23.0
440C-9031UA	440C	D90 -31µm	Water / AquaMIM®	S44004	Spherical	Gas	5	15	30.5
440C-9032OA	440C	D90 -32µm	Water / AquaMIM®	S44004	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
440M-9015AA	440C-MOD	D90 -15µm, PF-10F	Water / AquaMIM®	n/a	Rounded	Water	3.0	6.0	15.0
440M-9020AA	440C-MOD	D90 -20µm, PF-15F	Water / AquaMIM®	n/a	Rounded	Water	3.0	8.0	20.0
440M-9023AA	440C-MOD	D90 -23µm, PF-20F	Water / AquaMIM®	n/a	Rounded	Water	4.0	10.0	23.0
C212-8022OA	Co212 (type F-75)	D80 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	11.0 - 13.0	25.0 - 28.0

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
C212-9016OA	Co212 (type F-75)	D90 -16µm	Water / AquaMIM®	n/a	Spherical	Gas	3.5 - 4.5	8.0 - 9.0	15.0 - 16.0
C212-9022OA	Co212 (type F-75)	D90 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	9.5 - 11.0	21.0 - 22.0
C212-9032OA	Co212 (type F-75)	D90 -32µm	Water / AquaMIM®	n/a	Spherical	Gas	4.0 - 5.0	10.0 - 13.0	27.0 - 32.0
CCM0-8516CA	CCM © (BioDur™)	D85 -16µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
CCM0-8522CA	CCM © (BioDur™)	D85 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
CCM0-8532CA	CCM © (BioDur™)	D85 -32µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
CCMP-8516CA	CCM Plus™ (BioDur™)	D85 -16µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
CCMP-8522CA	CCM Plus™ (BioDur™)	D85 -22µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
CCMP-8532CA	CCM Plus™ (BioDur™)	D85 -32µm	Water / AquaMIM®	n/a	Spherical	Gas	pending	pending	pending
WC00-CO03MS	WC-3Co (WC type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO03MS	WC-3Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO03MS	WC-3Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-CO03MS	WC-3Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-CO07MS	WC-7Co (WC type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO07MS	WC-7Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO07MS	WC-7Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-CO07MS	WC-7Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-CO09MS	WC-9Co (WC type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO09MS	WC-9Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO09MS	WC-9Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-CO09MS	WC-9Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-CO12MS	WC-12Co (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO12MS	WC-12Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO12MS	WC-12Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending

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## De-bind Methods Available

AquaMIM® Water de-bind  
Solvent de-bind  
Super Critical Fluid de-bind  
Thermal de-bind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
WC03-CO12MS	WC-12Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-CO15MS	WC-15Co (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO15MS	WC-15Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO15MS	WC-15Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-CO15MS	WC-15Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-CO25MS	WC-25Co (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-CO25MS	WC-25Co (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-CO25MS	WC-25Co (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-CO25MS	WC-25Co (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI03MS	WC-3Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-NI03MS	WC-3Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI03MS	WC-3Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI03MS	WC-3Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI07MS	WC-7Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-NI07MS	WC-7Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI07MS	WC-7Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI07MS	WC-7Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI09MS	WC-9Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-NI09MS	WC-9Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI09MS	WC-9Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI09MS	WC-9Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI12MS	WC-12Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-NI12MS	WC-12Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI12MS	WC-12Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI12MS	WC-12Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI15MS	WC-15Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending

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							d10	d50	d90
WC01-NI15MS	WC-15Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI15MS	WC-15Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI15MS	WC-15Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC00-NI25MS	WC-25Ni (type 0)	0.5 - 0.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC01-NI25MS	WC-25Ni (WC type I)	1.0 - 1.69µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC02-NI25MS	WC-25Ni (WC type II)	1.7 - 5.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC03-NI25MS	WC-25Ni (WC type III)	6.0 - 8.99µm, 0.9µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC10-N2F1MS	W 97, Ni 1.8, Fe 1.2	4.00 - 5.99µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending
WC10-Co11MS	WC II 88.5%, Co 11.5%	1.7 - 5.99µm	Solvent, SFE or Thermal	n/a	Mixed	Mixed	pending	pending	pending