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RYER, Inc.

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

De-bind Methods Available

AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
1006-9009MS	100Cr6 (SAE 52100)	D90 -09µm	Solvent, SFE or Thermal / SolvMIM [®]	G52986	Rounded	Gas	2.5	5.0	8.5
1006-9011MS	100Cr6 (SAE 52100)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G52986	Rounded	Gas	1.5	3.8	10.5
1006-9015AS	100Cr6 (SAE 52100)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	G52986	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
1006-9016OS	100Cr6 (SAE 52100)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G52986	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1006-9022OS	100Cr6 (SAE 52100)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G52986	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
1008-9011MS	1008	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G10080	Rounded	Mixed	1.7	5.2	11.1
1008-9016AS	1008	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	G10080	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1010-9011MS	1010	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	G10100	Rounded	Mixed	1.7	4.0	11.0
1010-9016AS	1010	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	G10100	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1010-9020AS	1010	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	G10100	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
1070-9011MS	1070	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G10700	Rounded	Mixed	2.0	4.0	11.0
1080-9011MS	1080	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G10800	Rounded	Mixed	2.0	4.0	11.0
14828-9016AS	309S X15CrNiSi20-12 (1.4828)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S30908	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
14828-9016OS	309S X15CrNiSi20-12 (1.4828)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S30908	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1550-9016OS	15-5PH	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S15500	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1550-9022OS	15-5PH	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S15500	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
16MnCr5-9016OS	16MnCr5	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
16MnCr5-9020AS	16MnCr5	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
1740-081669AS	17-4PH (16.69%)	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
1740-081800AS	17-4PH (18.00%)	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
1740-161669AS	17-4PH (16.69%)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-161760AS	17-4PH (17.60%)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-161800AS	17-4PH (18.00%)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-162160AS	17-4PH (21.60%)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-9008AS	17-4PH	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
1740-9010OS	17-4PH	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
1740-9015AS	17-4PH	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
1740-9016AS	17-4PH	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-9016CS	17-4PH	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1740-9016OS	17-4PH	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1740-9020AS	17-4PH	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0

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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
1740-9022CS	17-4PH	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
1740-9022OS	17-4PH	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S17400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
1770-9016OS	17-7PH	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S17700	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1770-9022OS	17-7PH	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S17700	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
18Ni300-9010OS	18Ni 300	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	K93120	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
18Ni300-9016OS	18Ni 300	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K93120	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
18Ni300-9022OS	18Ni 300	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	K93120	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
2024-9034US	2024 Aluminum	D90 -34	Solvent, SFE or Thermal / SolvMIM [®]	A92024	Rounded	Gas	TBD	12.0 - 18.0	34 MAX
2507-9010OS	2507	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	S32750	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
2507-9016OS	2507	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S32750	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
2507-9022OS	2507	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S32750	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
303L-9010OS	303L	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
303L-9016AS	303L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-9016CS	303L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-9016OS	303L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-9022OS	303L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-9008AS	304L	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
304L-9010OS	304L	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
304L-9015AS	304L	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
304L-9016AS	304L	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
304L-9016CS	304L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-9016OS	304L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-9020AS	304L	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
304L-9022CS	304L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-9022OS	304L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
310S-9016OS	310S	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S31008	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
310S-9022OS	310S	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S31008	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3140-9016CS	314	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S31400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3140-9022CS	314	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S31400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316D-9016CS	316 Duplex	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316D-9016OS	316 Duplex	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0



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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
316D-9022CS	316 Duplex	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316D-9022OS	316 Duplex	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-161669AS	316L (16.69%)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-9008AS	316L	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
316L-9010OS	316L	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
316L-9015AS	316L	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
316L-9016AS	316L	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-9016CS	316L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-9016OS	316L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-9020AS	316L	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
316L-9022CS	316L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-9022OS	316L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
317L-9015AS	317L	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S31703	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
317L-9016OS	317L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S31703	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
317L-9020AS	317L	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S31703	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
317L-9022OS	317L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S31703	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
31CrMoV9-9016AS	31CrMoV9	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
3290-9015AS	329	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S32900	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
3290-9016OS	329	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S32900	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3290-9020AS	329	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S32900	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
3290-9022OS	329	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S32900	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3470-9016CS	347	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S34700	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3470-9022CS	347	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S34700	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
403L-9016CS	403L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
409L-9016AS	409L	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S40910	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
409L-9016CS	409L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S40910	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4100-9016CS	410	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S41000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4100-9016OS	410	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S41000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4100-9022CS	410	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S41000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4100-9022OS	410	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S41000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
410L-9015AS	410L	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S41008	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0



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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
410L-9020AS	410L	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S41008	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
410L-9022OS	410L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S41008	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4120-9011MS	4120	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G41200	Rounded	Gas	2.0	5.0	11.0
4130-9011MS	4130	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G41300	Mixed	Mixed	2.0	4.0	11.0
4130-9015AS	4130	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	G41300	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4130-9020AS	4130	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	G41300	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4140-111669MS	4140 (16.69%)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Rounded	Water/Gas	2.0	4.0	11.0
4140-9011MS	4140	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Rounded	Gas	2.0	4.0	11.0
4140-9015AS	4140	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4140-9016CS	4140 (SCM 440)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4140-9016OS	4140	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4140-9022CS	4140 (SCM 440)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4140-9022OS	4140	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G41400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4150-9015AS	4150 (SCM 415)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4150-9016CS	4150 (SCM 415)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4150-9016OS	4150 (SCM 415)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4150-9020AS	4150 (SCM 415)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4150-9022CS	4150 (SCM 415)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4150-9022OS	4150 (SCM 415)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G41500	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
416-9016AS	416	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S41600	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
416L-9016AS	416L	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S41603	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4180-9016OS	418	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S41800	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4180-9022OS	418	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S41800	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-9008AS	420	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
4200-9015AS	420	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4200-9016AS	420	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4200-9016CS	420	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-9016OS	420	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-9020AS	420	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4200-9022CS	420	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-9022OS	420	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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De-bind Methods Available

AquaMIM[®] = Water Debind

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SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
420B-9010OS	420 B	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
420B-9016OS	420 B	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420B-9022OS	420 B	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420CW-9022CS	420-CW	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420J2-9016OS	420-J2	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4300-9010OS	430	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	S43000	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
4300-9016AS	430	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S43000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4300-9016OS	430	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S43000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4300-9022OS	430	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S43000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
430L-9016AS	430L	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
430L-9016CS	430L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
430L-9016OS	430L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
430L-9022CS	430L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
430L-9022OS	430L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4340-9010MS	4340	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Rounded	Mixed	2.0	4.5	10.0
4340-9015AS	4340	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4340-9016CS	4340	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4340-9016OS	4340	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4340-9020AS	4340	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4340-9022CS	4340	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4340-9022OS	4340	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
434S-9022OS	434	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G43400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4365-9016OS	4365	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4365-9022OS	4365	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440B-9016OS	440B	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S44003	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440B-9022OS	440B	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S44003	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-9015AS	440C	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
440C-9016AS	440C	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
440C-9016CS	440C	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-9016OS	440C	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-9020AS	440C	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0

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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
440C-9022CS	440C	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-9022OS	440C	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440CMOD-9016AS	440C MOD	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
440M-9015AS	440C-MOD	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
440M-9020AS	440C-MOD	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4605-9011MS	MIM-4605	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	2.0	4.0	11.0
4615-9016AS	4615	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G46150	Rounded	Water/Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4630-9011MS	4630	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	2.0	4.0	11.0
4630-9016AS	4630	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4630-9016OS	4630	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4630-9020AS	4630	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4650-9015AS	4650 (MIM-4650)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4650-9020AS	4650 (MIM-4650)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4805-9011MS	4805 (FL-4805)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Gas	1.5	3.6	10.5
5305-9011MS	5305 (FL-5305)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Gas	1.5	3.8	10.5
6061-9034US	6061 Aluminum	D90 -34µm	Solvent, SFE or Thermal / SolvMIM [®]	A96061	Rounded	Gas	TBD	12 - 18	34.0
7075-9034US	7075 Aluminum	D90 -34µm	Solvent, SFE or Thermal / SolvMIM [®]	A97075	Rounded	Gas	TBD	12 - 18	34.0
8620-9016AS	8620	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	G86200	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
8620-9016OS	8620	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	G86200	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
8620-9022OS	8620	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	G86200	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
8740-9011MS	8740	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	G87400	Rounded	Gas	1.6	4.1	10.8
904L-9010OS	904L	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	N08904	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
904L-9016OS	904L	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N08904	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
904L-9022OS	904L	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N08904	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
A110-9016AS	A-11	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30111	Rounded	Water/Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
A110-9016CS	A-11	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30111	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
A200-9010OS	A-2	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	T30102	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
A200-9016CS	A-2	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30102	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
A200-9016OS	A-2	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30102	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
A286-9008AS	A286	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	S66286	Rounded	Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
A286-9016AS	A286	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S66286	Rounded	Water/Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0



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AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
A286-9016OS	A286	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S66286	Rounded	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Ag00-9025CS	99.99 Refined Silver	D90 -25µm	Solvent, SFE or Thermal / SolvMIM [®]	P07010	Spherical	Gas	pending	pending	pending
AgCu-9025CS	935 AgCu Sterling Silver	D90 -25µm	Solvent, SFE or Thermal / SolvMIM [®]	P07932	Spherical	Gas	pending	pending	pending
B108-9016CS	BioDur [®] 108	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S29108	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
C212-9016OS	F75 (Co212-c), low carbon	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
C212-9022OS	F75 (Co212-c), low carbon	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
C502-9016OS	Co502 (Stellite 12)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30012	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
C502-9022OS	Co502 (Stellite 12)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30012	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
CA10-9016OS	Cu10Al	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CA10-9022OS	Cu10Al	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
CCMP-9010CS	CCM Plus [™] (BioDur [™])	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	R31538	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
CS10-9016OS	Cu10Sn (Bronze 90/10)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	C90700	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CS10-9022OS	Cu10Sn (Bronze 90/10)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	C90700	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
CS15-9016OS	Cu15Sn (Bronze 85/15)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	C91000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CS15-9022OS	Cu15Sn (Bronze 85/15)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	C91000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Cu15Ni8Sn-MS	Cu 15%Ni 8%Sn	D90 -35µm	Solvent, SFE or Thermal / SolvMIM [®]	C72900	Spherical	Gas	TBD	TBD	-325
CUMI-9016CS	Cu-MIM (Copper)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CUMI-9022CS	Cu-MIM (Copper)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
CUMI-9090RS	Cu-MIM (Copper)	D90 -90µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	30	55	90
CuNi-7030MS	70% Copper - 30% Nickel		Solvent, SFE or Thermal / SolvMIM [®]	C71580	Spherical	Gas	TBD	TBD	TBD
CuNi-9010US	90% Copper - 10% Nickel		Solvent, SFE or Thermal / SolvMIM [®]	C70700	Rounded	Gas	TBD	TBD	TBD
CuSn-9010RS	Bronze 90/10	-325	Solvent, SFE or Thermal / SolvMIM [®]	C90700	Spherical	Gas	TBD	TBD	TBD
D200-9010OS	D-2 (SKD-11)	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
D200-9015AS	D-2 (SKD-11)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
D200-9016AS	D-2 (SKD-11)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
D200-9016CS	D-2 (SKD-11)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-9016OS	D-2 (SKD-11)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-9020AS	D-2 (SKD-11)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
D200-9022CS	D-2 (SKD-11)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
D200-9022OS	D-2 (SKD-11)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T30402	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
EN19A-9022OS	42CrMo4 (B.S. EN19A)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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De-bind Methods Available

AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
EN1A-9022OS	EN1A	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
F750-101800OS	F75 (18.00%)	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
F750-161800OS	F75 (18.00%)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
F750-221800OS	F75 (18.00%)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
F750-9010CS	F75	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
F750-9010OS	F75	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
F750-9016CS	CCM [®] (type F75)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R31537	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
F750-9016OS	F75	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
F750-9022CS	CCM Plus [™] (type F75)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R31538	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
F750-9022OS	F75	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30075	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FC08-9016CS	Fe8Cr	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FC08-9022CS	Fe8Cr	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Fe27CoCr-AS	Fe27CoCr (Hiperco [®] 27 Alloy)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	K92650	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
Fe27CoCr-OS	Fe27CoCr (Hiperco [®] 27 Alloy)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K92650	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe2MoNiCr-9010OS	Fe2MoNiCr	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
Fe2MoNiCr-9016OS	Fe2MoNiCr	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe2MoNiCr-9022OS	Fe2MoNiCr	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Fe3Si-9011MS	MIM-Fe-3%Si	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	2.0	5.5	11.5
Fe50Ni-9016OS	Fe50Ni	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe50Ni-9022OS	Fe50Ni	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FeCoV-9015AS	FeCoV (49FeCo2V)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FeCoV-9016CS	FeCoV (49FeCo2V)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FeCoV-9016OS	FeCoV (49FeCo2V)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FeCoV-9020AS	FeCoV (49FeCo2V)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FeCoV-9022CS	FeCoV (49FeCo2V)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FeCoV-9022OS	FeCoV (49FeCo2V)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30005	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FN02-9008MS	MIM-2200 (FN02, Fe 2%Ni)	D90 -8µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	2.0	4.2	8.0
FN02-9012MS	MIM-2200 (FN02, Fe 2%Ni)	D90 -12µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	1.0 - 2.5	4.5 - 6.0	10.0 - 12.0
FN02-9015AS	MIM-2200 (FN02, Fe 2%Ni)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FN02-9015MS	MIM-2200 (FN02, Fe 2%Ni)	D90 -12µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0	6.4	17.4
FN02-9020AS	MIM-2200 (FN02, Fe 2%Ni)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0

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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
FN0405-9011MS	FN0405 (MIM-FN0405)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	2.0	4.0	11.0
FN07-9020MS	MIM-2700 (FN08)	D90 -20µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	4.0	7.0	20.0
FN08-9011MS	MIM-2700 (FN08)	D90 -11µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	1.5	3.7	10.3
FN08-9015AS	MIM-2700 (FN08)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FN08-9020AS	MIM-2700 (FN08)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FN08-9020MS	MIM-2700 (FN08)	D90 -20µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	4.0	7.0	20.0
FN30-9016CS	FN30 (Fe 30%Ni)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FN30-9022CS	FN30 (Fe 30%Ni)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FN42-9022CS	FN42 (Fe 42%Ni)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	K94101	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FN50-9015AS	MIM-Fe50%Ni	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FN50-9020AS	MIM-Fe50%Ni	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FS03-9016AS	Fe3.5Si (PIS30)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
FS03-9020AS	Fe3.5Si (PIS30)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FS05-9015AS	Fe5.5Si (PIS55)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FS05-9020AS	Fe5.5Si (PIS55)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FS06-9015AS	Fe6.5Si (PIS65)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
FS06-9020AS	Fe6.5Si (PIS65)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
H110-9016OS	H-11	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T20811	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H110-9020AS	H-11	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	T20811	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
H110-9022CS	H-11	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T20811	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H110-9022OS	H-11	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T20811	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H130-9010OS	H-13 (SKD-61)	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	T20813	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
H130-9016AS	H-13 (SKD-61)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	T20813	Spherical	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
H130-9016CS	H-13 (SKD-61)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T20813	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H130-9016OS	H-13 (SKD-61)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T20813	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H130-9022OS	H-13 (SKD-61)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T20813	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H188-9022OS	Haynes 188	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30188	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H250-9016CS	Haynes 25	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30605	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H250-9016OS	Co90 (Haynes 25)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30605	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H250-9022CS	Haynes 25	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30605	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H250-9022OS	Co90 (Haynes 25)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30605	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0

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SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
HC22-9010OS	Hastelloy [®] C22	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	N06022	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
HC22-9015AS	Hastelloy [®] C22	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	N06022	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
HC22-9016OS	Hastelloy [®] C22	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N06022	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HC22-9020AS	Hastelloy [®] C22	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	N06022	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
HC22-9022OS	Hastelloy [®] C22	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N06022	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
HC27-9016AS	Hastelloy [®] C276	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	W80276	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
HC27-9020AS	Hastelloy [®] C276	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	W80276	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
HCCU-9016OS	HC Cu	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	C11020	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HCCU-9022OS	HC Cu	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	C11020	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
HK30-9015AS	HK30 (310)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	J94203	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
HK30-9016AS	HK30 (310)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	J94203	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
HK30-9016CS	HK30 (310)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	J94203	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HK30-9020AS	HK30 (310)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	J94203	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
HK30-9022CS	HK30 (310)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	J94203	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
HK30Nb-9016OS	HK30 Nb-modified	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HM80-9016AS	HyMu 80 [®]	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
HM80-9016CS	HyMu 80 [®]	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HM80-9016OS	HyMu 80 [®]	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HM80-9020AS	HyMu 80 [®]	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
HM80-9022OS	HyMu 80 [®]	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
HX00-9016OS	Hastelloy X (H - X)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N06002	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HX00-9022OS	Hastelloy X (H - X)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N06002	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
IN36-9015AS	Invar [®] 36	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	K93601	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
IN36-9016CS	Invar [®] 36	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K93601	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
IN36-9016MS	Invar [®] 36	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K93601	Rounded	Mixed	3.3	6.2	16.5
IN36-9020AS	Invar [®] 36	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	K93601	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
IN42-9016MS	Invar [®] 42	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K94100	Rounded	Mixed	3.3	6.2	15.9
KF15-9015AS	F15 Kovar [®]	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	K94610	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
KF15-9016CS	F15 Kovar [®]	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	K94610	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
KF15-9020AS	F15 Kovar [®]	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	K94610	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
KF15-9022CS	F15 Kovar [®]	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	K94610	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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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
KF15-9022OS	F15 Kovar [®]	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	K94610	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
M200-161669OS	M-2 (SKH-51) (16.69%)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-9008AS	M-2 (SKH-51)	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
M200-9015AS	M-2 (SKH-51)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
M200-9016AS	M-2 (SKH-51)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
M200-9016CS	M-2 (SKH-51)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-9016OS	M-2 (SKH-51)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-9020AS	M-2 (SKH-51)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
M200-9022CS	M-2 (SKH-51)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
M200-9022OS	M-2 (SKH-51)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T11302	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
M400-9010OS	M-4	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	T11304	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
M400-9016OS	M-4	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T11304	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M400-9022OS	M-4	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T11304	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
M420-9008AS	M-42	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	T11342	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
M420-9016AS	M-42	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	T11342	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
N20C-9015AS	Ni-20Cr	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
N20C-9020AS	Ni-20Cr	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
N625-9008AS	625 Inconel [™] (IN 625)	D90 -08µm, PF-5	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Rounded	Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
N625-9010OS	625 Inconel [™] (IN 625)	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Rounded	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
N625-9015AS	625 Inconel [™] (IN 625)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
N625-9016AS	625 Inconel [™] (IN 625)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
N625-9016OS	625 Inconel [™] (IN 625)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N625-9022CS	625 Inconel [™] (IN 625)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N625-9022OS	625 Inconel [™] (IN 625)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N06625	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N713-9010OS	Inconel [™] 713 (IN 713)	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	N07713	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
N713-9016CS	Inconel [™] 713 (IN 713)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N713-9016OS	Inconel [™] 713 (IN 713)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N713-9022CS	Inconel [™] 713 (IN 713)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07713	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N713-9022OS	Inconel [™] 713 (IN 713)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07713	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N718-9016AS	718 Inconel [™] (IN 718)	D90 -16µm, PF-13	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
N718-9016CS	718 Inconel [™] (IN 718)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0



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AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
N718-9016OS	718 Inconel™ (IN 718)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N718-9020AS	718 Inconel™ (IN 718)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
N718-9022CS	718 Inconel™ (IN 718)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N718-9022OS	718 Inconel™ (IN 718)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07718	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
NI60-9016OS	Nitronic™ 60	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	S21800	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
NI60-9022OS	Nitronic™ 60	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	S21800	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
NI90-9015AS	N90 Alloy	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
NI90-9016CS	N90 Alloy	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
NI90-9016OS	N90 Alloy	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
NI90-9020AS	N90 Alloy	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
NI90-9022CS	N90 Alloy	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
NI90-9022OS	N90 Alloy	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	N07090	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
NI99-9028NS	Nickel	4SNP-400	Solvent, SFE or Thermal / SolvMIM [®]	N02200	Spherical	Gas	2.0 - 4.4	7.5 - 11.4	20.0 - 25.2
NiCoCrAlY-9016CS	NiCoCrAlY	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
NiCoCrAlY-9016OS	NiCoCrAlY	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
NiCoCrAlY-9022CS	NiCoCrAlY	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
NiCoCrAlY-9022OS	NiCoCrAlY	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
PANACEA-16CS	Fe17Cr11Mn3Mo (16.69%)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
PANACEA-22CS	Fe17Cr11Mn3Mo (16.69%)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
S200-9016OS	S-2	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T41902	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S200-9022OS	S-2	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T41902	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
S500-9016AS	S-5	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T41905	Rounded	Water/Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S500-9016CS	S-5	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T41905	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S600-9015AS	Stellite™ 6	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	R30106	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
S600-9020AS	Stellite™ 6	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	R30106	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
S6B0-9016OS	Stellite™ 6B	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30016	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S6B0-9022OS	Stellite™ 6B	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	R30016	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
S700-9010OS	S-7	D90 -10µm	Solvent, SFE or Thermal / SolvMIM [®]	T41907	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
S700-9016CS	S-7	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-9016OS	S-7	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-9022CS	S-7	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T41907	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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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
S700-9022OS	S-7	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T41907	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
SEND-9015AS	Fe9Si6Al (FeSiAl, Sendust)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
SEND-9016CS	Fe9Si6Al (FeSiAl, Sendust)	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
SEND-9020AS	Fe9Si6Al (FeSiAl, Sendust)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
SEND-9022CS	Fe9Si6Al (FeSiAl, Sendust)	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Sint-C11-9009MS	FC-0208 (Sint-C11)	D90- 09µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Gas	2.5	5.0	9.0
T150-9016CS	T-15	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T12015	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
T150-9016OS	T-15	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	T12015	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
T150-9022CS	T-15	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T12015	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
T150-9022OS	T-15	D90 -22µm	Solvent, SFE or Thermal / SolvMIM [®]	T12015	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
T400-9016OS	T-400	D90 -16µm	Solvent, SFE or Thermal / SolvMIM [®]	R30400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
T42-9015AS	T-42 (SKH-57)	D90 -13µm, PF-10	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
T42-9020AS	T-42 (SKH-57)	D90 -20µm, PF-15	Solvent, SFE or Thermal / SolvMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
Ti64-0022RS	6Al-4V Grade 5	-20	Solvent, SFE or Thermal / SolvMIM [®]	R56400	Spherical	Plasma	TBD	TBD	22.0
Ti64-0025RS	6Al-4V Grade 5	-25	Solvent, SFE or Thermal / SolvMIM [®]	R56400	Spherical	Plasma	TBD	TBD	TBD
KW50-Ni1.8Fe1.2MS	97% W - 1.8% Ni - 1.2% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni2.1Fe0.9MS	97% W - 2.1% Ni - 0.9% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni2Fe1MS	97% W - 2% Ni - 1% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni3.5Cu1.5MS	95% W - 3.5% Ni - 1.5% Cu (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni3.5Fe1.5MS	95% W - 3.5% Ni - 1.5% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni5.25Fe2.25MS	90% W - 5.25% Ni - 2.25% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni5MS	95% W - 5% Ni (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni6Cu4MS	90% W - 6% Ni - 14% Cu (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni7Fe1.8Co1.2MS	90% W - 7% Ni - 1.8% Fe - 1.2% Co (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KW50-Ni7Fe3MS	90% W - 7% Ni - 3% Fe (23.71%)	FSSS 4.5 - 5.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	4.5 - 5.5	TBD
KWC32-Co10MS	WC 90%, Co 10% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co11.5MS	WC 88.5%, Co 11.5% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co12.25MS	WC 87.75%, Co 12.25% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co12MS	WC 88%, Co 12% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co13MS	WC 87%, Co 13% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co15MS	WC 85%, Co 15% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD



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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
KWC32-Co20MS	WC 80%, Co 20% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co25MS	WC 75%, Co 25% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co6MS	WC 94.0%, Co 6.0% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co7.5MS	WC 92.5%, Co 7.5% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
KWC32-Co9MS	WC 91%, Co 9% (23.71%)	FSSS 2.9 - 3.5µm	Solvent, SFE or Thermal / SolvMIM [®]	none	Mixed	Mixed	FSSS	2.9 - 3.5	TBD
1.4091-161669AC	1.4091 MPD4 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1.4091-162160AC	1.4091 MPD4 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1006-111669MC	100Cr6 (SAE 52100) (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G52986	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1006-112160MC	100Cr6 (SAE 52100) (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G52986	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1040-111669MC	1040(16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G10400	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1040-112160MC	1040 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G10400	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1060-111669MC	1060 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G10600	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1060-112160MC	1060 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G10600	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1070-111669MC	1070 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G10700	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1070-112160MC	1070 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G10700	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1080-111669MC	1080 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G10800	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
1080-112160MC	1080 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	G10800	Rounded	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
16MnCr5-161669OC	16MnCr5 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
16MnCr5-162160OC	16MnCr5 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1740-161669AC	17-4PH (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-162160AC	17-4PH (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
18Ni300-161669OC	18Ni 300 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	K93120	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
18Ni300-162160OC	18Ni 300 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	K93120	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
18Ni300-221669OC	18Ni300 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	K93120	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
18Ni300-222160OC	18Ni300 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	K93120	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
2200-111669MC	MIM-2200 Fe-2%Ni (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
2200-112160MC	MIM-2200 Fe-2%Ni (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
2205-161669AC	2205, DIN 1.4462 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S32205	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
2205-161669OC	2205, DIN 1.4462 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S32205	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0

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De-bind Methods Available

AquaMIM[®] = Water Debind

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SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
2205-162160AC	2205, DIN 1.4462 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S32205	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
2205-162160OC	2205, DIN 1.4462 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S32205	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
2205-221669OC	2205, DIN 1.4462 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S32205	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
2205-222160OC	2205, DIN 1.4462 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S32205	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
303L-161669CC	303L (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-162160CC	303L (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-221669CC	303L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
303L-222160CC	303L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-161669AC	304L (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S30403	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
304L-161669CC	304L (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-161669OC	304L (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-162160AC	304L (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S30403	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
304L-162160CC	304L (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-162160OC	304L (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-221669CC	304L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-221669OC	304L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-222160CC	304L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-222160OC	304L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-161669AC	316L (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-161669OC	316L (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-162160AC	316L (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-162160OC	316L (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-221669OC	316L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-222160OC	316L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
410L-201669AC	410L (16.69%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	S41008	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
410L-202160AC	410L (21.60%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	S41008	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
410L-221669CC	410L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S41008	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
410L-222160CC	410L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S41008	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4130-111669MC	4130 (16.69%) (42CrMo4)	D90 -11µm	Catalytic / CataMIM [®]	G41300	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
4130-112160MC	4130 (21.60%) (42CrMo4)	D90 -11µm	Catalytic / CataMIM [®]	G41300	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
4140-111669MC	4140 (16.69%) (42CrMo4)	D90 -11µm	Catalytic / CataMIM [®]	G41400	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0

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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
4140-112160MC	4140 (21.60%) (42CrMo4)	D90 -11µm	Catalytic / CataMIM [®]	G41400	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
4150-111669MC	4150 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G41500	Mixed	Mixed	.48 - 2.5	2.7 - 4.8	8.9 - 10.9
4150-112160MC	4150 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G41500	Mixed	Mixed	.48 - 2.5	2.7 - 4.8	8.39 - 10.9
416L-221669CC	416L (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S41603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
416L-222160CC	416L (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S41603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
416LS-161669OC	416L (Low S) (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S41603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
416LS-162160OC	416L (Low S) (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S41603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-161669AC	420 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S42000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4200-161669CC	420 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-161669OC	420 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-162160AC	420 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S42000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4200-162160CC	420 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-162160OC	420 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-221669CC	420 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-221669OC	420 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-222160CC	420 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-222160OC	420 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420B-161669OC	420 B (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420B-162160OC	420 B (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420B-221669OC	420 B (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420B-222160OC	420 B (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420J2-161669AC	420-J2 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
420J2-161669CC	420-J2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420J2-161669OC	420-J2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420J2-162160AC	420-J2 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
420J2-162160CC	420-J2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420J2-162160OC	420-J2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420J2-221669CC	420-J2 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420J2-221669OC	420-J2 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420J2-222160CC	420-J2 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420J2-222160OC	420-J2 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0

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De-bind Methods Available

AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
42CrMo4-161669OC	42CrMo4 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
42CrMo4-162160OC	42CrMo4 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
42CrMo4-221669OC	42CrMo4 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
42CrMo4-222160OC	42CrMo4 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4300-161669AC	SUS 430 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S43000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4300-162160AC	SUS 430 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S43000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
430L-161669AC	430L (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
430L-161669OC	430L (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
430L-162160AC	430L (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
430L-162160OC	430L (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4340-111669MC	4340 (16.69%)	D90 -10µm	Catalytic / CataMIM [®]	G43400	Rounded	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
4340-112160MC	4340 (21.60%)	D90 -10µm	Catalytic / CataMIM [®]	G43400	Rounded	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
434LCb-161669OC	434LCb (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
434LCb-162160OC	434LCb (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
434LCb-221669OC	434LCb (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
434LCb-222160OC	434LCb (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C+Nb-161669AC	MIM-440 High Nb (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
440C+Nb-162160AC	MIM-440 High Nb (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
440C+Nb-201669AC	MIM-440 High Nb (16.69%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
440C+Nb-202160AC	MIM-440 High Nb (21.60%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
440C-161669CC	440C (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-161669OC	440C (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-162160CC	440C (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-162160OC	440C (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-221669CC	440C (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-221669OC	440C (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-222160CC	440C (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-222160OC	440C (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440CMOD-161669AC	440C MOD (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
440CMOD-162160AC	440C MOD (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4605-081669MC	MIM-4605 (16.69%)	D90 -8µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0

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De-bind Methods Available

AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
4605-082160MC	MIM-4605 (21.60%)	D90 -8µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
4630-111669MC	4630 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2	5	11
4630-112160MC	4630 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2	5	11
4630-161669AC	4630 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
4630-162160AC	4630 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
465-161669AC	465 Stainless (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S46500	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
465-162160AC	465 Stainless (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	S46500	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
625-161669AC	625 Inconel™ (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	N06625	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
625-161669CC	625 Inconel™ (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	N06625	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
625-162160AC	625 Inconel™ (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	N06625	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
625-162160CC	625 Inconel™ (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	N06625	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
713-161669CC	713 Inconel™ (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
713-162160CC	713 Inconel™ (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
713C-161669OC	713 Inconel™ (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
713C-162160OC	713 Inconel™ (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
713C-221669OC	713 Inconel™ (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
713C-222160OC	713 Inconel™ (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	N07713	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
718-161669CC	718 Inconel™ (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
718-162160CC	718 Inconel™ (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
8620-161669AC	8620 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	G86200	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
8620-161669OC	8620 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
8620-162160AC	8620 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	G86200	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
8620-162160OC	8620 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
8620-221669CC	8620 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
8620-221669OC	8620 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
8620-222160CC	8620 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
8620-222160OC	8620 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	G86200	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
8740-111669MC	8740 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	G87400	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
8740-112160MC	8740 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	G87400	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
CCM+-161669CC	CCM Plus™ (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R31538	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CCM+-162160CC	CCM Plus™ (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R31538	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0



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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
CCM-161669CC	CCM© (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R31537	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
CCM-162160CC	CCM© (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R31537	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-161669AC	D-2 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T30402	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
D200-161669CC	D-2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-161669OC	D-2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-162160AC	D-2 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T30402	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
D200-162160CC	D-2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-162160OC	D-2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
D200-221669OC	D-2 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
D200-222160OC	D-2 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	T30402	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
EN36C-161669AC	EN36C (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
EN36C-162160AC	EN36C (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
F75-161669AC	F75 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	R30075	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
F75-162160AC	F75 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	R30075	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
Fe2MoNiCr-161669OC	Fe2MoNiCr (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe2MoNiCr-162160OC	Fe2MoNiCr (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe2MoNiCr-221669OC	Fe2MoNiCr (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Fe2MoNiCr-222160OC	Fe2MoNiCr (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Fe3Si-111669MC	MIM-Fe-3%Si (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2.0	5.5	11.5
Fe3Si-112160MC	MIM-Fe-3%Si (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2.0	5.5	11.5
Fe50Co-141669MC	MIM-Fe-50%Co (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
Fe50Co-142160MC	MIM-Fe-50%Co (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
Fe50Ni-111669MC	MIM-Fe-50%Ni (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
Fe50Ni-112160MC	MIM-Fe-50%Ni (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
Fe50Ni-161669OC	Fe50Ni (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe50Ni-162160OC	Fe50Ni (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
Fe50Ni-221669OC	Fe50Ni (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Fe50Ni-222160OC	Fe50Ni (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FeCoV-161669OC	FeCoV (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FeCoV-162160OC	FeCoV (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R30005	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
FeCoV-221669OC	FeCoV (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	R30005	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0

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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
FeCoV-222160OC	FeCoV (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	R30005	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
FN02-161669MC	Fe 2%Ni, MIM-4605 (16.69%)	D90 -8µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN02-162160MC	Fe 2%Ni, MIM-4605 (21.60%)	D90 -8µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN0405-111669MC	MIM-FN0405 (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2.0	4.0	11.0
FN0405-112160MC	MIM-FN0405 (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	2.0	4.0	11.0
FN08-111669MC	MIM-2700 (Fe 8%Ni) (16.69%)	D90 -11µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN08-112160MC	MIM-2700 (Fe 8%Ni) (21.60%)	D90 -11µm	Catalytic / CataMIM [®]	none	Spherical	Gas	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN36-131669MC	Fe 36%Ni (16.69%)	D90 -13µm	Catalytic / CataMIM [®]	K93601	Mixed	Mixed	2.6	5.5	12.5
FN36-132160MC	Fe 36%Ni (21.60%)	D90 -13µm	Catalytic / CataMIM [®]	K93601	Mixed	Mixed	2.6	5.5	12.5
FN50-131669MC	MIM-Fe50%Ni (16.69%)	D90 -13µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN50-132160MC	MIM-Fe50%Ni (21.60%)	D90 -13µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	0.85 - 2.0	2.0 - 3.0	4.0 - 18.0
FN50-201669AC	MIM-Fe50%Ni (16.69%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
FN50-202160AC	MIM-Fe50%Ni (21.60%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
H13-161669OC	H-13 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T20813	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H13-162160OC	H-13 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T20813	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
H13-221669OC	H-13 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	T20813	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
H13-222160OC	H-13 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	T20813	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
HyMu80-161669AC	HyMu 80 [®] (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
HyMu80-161669CC	HyMu 80 [®] (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HyMu80-161669OC	HyMu 80 [®] (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HyMu80-162160AC	HyMu 80 [®] (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
HyMu80-162160CC	HyMu 80 [®] (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
HyMu80-162160OC	HyMu 80 [®] (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
KF15-161669AC	Kovar [™] F15 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	K94610	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
KF15-161669CC	Kovar [™] F15 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	K94610	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
KF15-162160AC	Kovar [™] F15 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	K94610	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
KF15-162160CC	Kovar [™] F15 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	K94610	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
KF15-201669AC	Kovar [™] F15 (16.69%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	K94610	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
KF15-202160AC	Kovar [™] F15 (21.60%)	D90 -20µm, PF-15	Catalytic / CataMIM [®]	K94610	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
KF15-221669CC	Kovar [™] F15 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	K94610	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
KF15-222160CC	Kovar [™] F15 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	K94610	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0

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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
M200-161669AC	M-2 (16.69%) (SKH-51)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T11302	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
M200-161669CC	M-2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-161669OC	M-2 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-162160AC	M-2 (21.60%) (SKH-51)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T11302	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
M200-162160CC	M-2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-162160OC	M-2 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
M200-221669OC	M-2 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
M200-222160OC	M-2 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	T11302	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N60-161669OC	Nitronic™ 60 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	S21800	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N60-162160OC	Nitronic™ 60 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	S21800	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
PANACEA-161669CC	Fe17Cr11Mn3Mo (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
PANACEA-162160CC	Fe17Cr11Mn3Mo (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-161669AC	S-7 (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T41907	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
S700-161669CC	S-7 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-161669OC	S-7 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-162160AC	S-7 (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	T41907	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
S700-162160CC	S-7 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-162160OC	S-7 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S700-221669OC	S-7 (16.69%)	D90 -22µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
S700-222160OC	S-7 (21.60%)	D90 -22µm	Catalytic / CataMIM [®]	T41907	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
S7MOD-161669AC	S-7 MOD (16.69%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
S7MOD-161669CC	S-7 MOD (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
S7MOD-162160AC	S-7 MOD (21.60%)	D90 -16µm, PF-13	Catalytic / CataMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
S7MOD-162160CC	S-7 MOD (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
T400-161669OC	T-400 (16.69%)	D90 -16µm	Catalytic / CataMIM [®]	R30400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
T400-162160OC	T-400 (21.60%)	D90 -16µm	Catalytic / CataMIM [®]	R30400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
W940-Ni06MC	W 94.0%, Ni 6.0% (21.60%)	FSSS 5.5 - 6.5µm	Catalytic / CataMIM [®]	none	Mixed	Mixed	pending	pending	pending
1550-9016OA	15-5PH	D90 -16µm	Water / AquaMIM [®]	S15500	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1550-9022OA	15-5PH	D90 -22µm	Water / AquaMIM [®]	S15500	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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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
1740-9008AA	17-4PH	D90 -08µm, PF-5	Water / AquaMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
1740-9015AA	17-4PH	D90 -13µm, PF-10	Water / AquaMIM [®]	S17400	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
1740-9016AA	17-4PH	D90 -16µm, PF-13	Water / AquaMIM [®]	S17400	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
1740-9016CA	17-4PH	D90 -16µm	Water / AquaMIM [®]	S17400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1740-9016OA	17-4PH	D90 -16µm	Water / AquaMIM [®]	S17400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1740-9020AA	17-4PH	D90 -20µm, PF-15	Water / AquaMIM [®]	S17400	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
1740-9022CA	17-4PH	D90 -22µm	Water / AquaMIM [®]	S17400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
1740-9022OA	17-4PH	D90 -22µm	Water / AquaMIM [®]	S17400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
1770-9016OA	17-7PH	D90 -16µm	Water / AquaMIM [®]	S17700	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
1770-9022OA	17-7PH	D90 -22µm	Water / AquaMIM [®]	S17700	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
18CrMo4-9016OA	18CrMo4 (SCM 420)	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
18CrMo4-9022OA	18CrMo4 (SCM 420)	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
303L-9016OA	303L	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
303L-9022OA	303L	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-9008AA	304L	D90 -08µm, PF-5	Water / AquaMIM [®]	S30403	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
304L-9015AA	304L	D90 -13µm, PF-10	Water / AquaMIM [®]	S30403	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
304L-9016AA	304L	D90 -16µm, PF-13	Water / AquaMIM [®]	S30403	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
304L-9016CA	304L	D90 -16µm	Water / AquaMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-9016OA	304L	D90 -16µm	Water / AquaMIM [®]	S30403	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
304L-9020AA	304L	D90 -20µm, PF-15	Water / AquaMIM [®]	S30403	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
304L-9022CA	304L	D90 -22µm	Water / AquaMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
304L-9022OA	304L	D90 -22µm	Water / AquaMIM [®]	S30403	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3100-9015AA	310	D90 -13µm, PF-10	Water / AquaMIM [®]	S31000	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
3100-9020AA	310	D90 -20µm, PF-15	Water / AquaMIM [®]	S31000	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
310S-9016OA	310S	D90 -16µm	Water / AquaMIM [®]	S31008	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
310S-9022OA	310S	D90 -22µm	Water / AquaMIM [®]	S31008	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3140-9016CA	314	D90 -16µm	Water / AquaMIM [®]	S31400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3140-9022CA	314	D90 -22µm	Water / AquaMIM [®]	S31400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316D-9016CA	316 Duplex	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316D-9016OA	316 Duplex	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316D-9022CA	316 Duplex	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0



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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
316D-9022OA	316 Duplex	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-161669AA	316L (16.69%)	D90 -16µm, PF-13	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-161900AA	316L (19.00%)	D90 -16µm, PF-13	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-9008AA	316L	D90 -08µm, PF-5	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	1.0 - 3.0	3.0 - 5.0	4.0 - 11.0
316L-9015AA	316L	D90 -13µm, PF-10	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
316L-9016AA	316L	D90 -16µm, PF-13	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
316L-9016CA	316L	D90 -16µm	Water / AquaMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-9016OA	316L	D90 -16µm	Water / AquaMIM [®]	S31603	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
316L-9020AA	316L	D90 -20µm, PF-15	Water / AquaMIM [®]	S31603	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
316L-9022CA	316L	D90 -22µm	Water / AquaMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
316L-9022OA	316L	D90 -22µm	Water / AquaMIM [®]	S31603	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
317L-9015AA	317L	D90 -13µm, PF-10	Water / AquaMIM [®]	S31703	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
317L-9016OA	317L	D90 -16µm	Water / AquaMIM [®]	S31703	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
317L-9020AA	317L	D90 -20µm, PF-15	Water / AquaMIM [®]	S31703	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
317L-9022OA	317L	D90 -22µm	Water / AquaMIM [®]	S31703	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3290-9015AA	329	D90 -13µm, PF-10	Water / AquaMIM [®]	S32900	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
3290-9016OA	329	D90 -16µm	Water / AquaMIM [®]	S32900	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3290-9020AA	329	D90 -20µm, PF-15	Water / AquaMIM [®]	S32900	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
3290-9022OA	329	D90 -22µm	Water / AquaMIM [®]	S32900	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
3470-9016CA	347	D90 -16µm	Water / AquaMIM [®]	S34700	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
3470-9022CA	347	D90 -22µm	Water / AquaMIM [®]	S34700	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4100-9016CA	410	D90 -16µm	Water / AquaMIM [®]	S41000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4100-9016OA	410	D90 -16µm	Water / AquaMIM [®]	S41000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4100-9022CA	410	D90 -22µm	Water / AquaMIM [®]	S41000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4100-9022OA	410	D90 -22µm	Water / AquaMIM [®]	S41000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
410L-9015AA	410L	D90 -13µm, PF-10	Water / AquaMIM [®]	S41008	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
410L-9020AA	410L	D90 -20µm, PF-15	Water / AquaMIM [®]	S41008	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4180-9016OA	418	D90 -16µm	Water / AquaMIM [®]	S41800	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4180-9022OA	418	D90 -22µm	Water / AquaMIM [®]	S41800	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-9015AA	420	D90 -13µm, PF-10	Water / AquaMIM [®]	S42000	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
4200-9016AA	420	D90 -16µm, PF-13	Water / AquaMIM [®]	S42000	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5



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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
4200-9016CA	420	D90 -16µm	Water / AquaMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-9016OA	420	D90 -16µm	Water / AquaMIM [®]	S42000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4200-9020AA	420	D90 -20µm, PF-15	Water / AquaMIM [®]	S42000	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
4200-9022CA	420	D90 -22µm	Water / AquaMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4200-9022OA	420	D90 -22µm	Water / AquaMIM [®]	S42000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420B-9010OA	420 B	D90 -10µm	Water / AquaMIM [®]	none	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
420B-9016OA	420 B	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
420B-9022OA	420 B	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
420CW-9022CA	420-CW	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
4300-9016OA	430	D90 -16µm	Water / AquaMIM [®]	S43000	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
4300-9022OA	430	D90 -22µm	Water / AquaMIM [®]	S43000	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
430L-9016AA	430L	D90 -16µm, PF-13	Water / AquaMIM [®]	none	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
430L-9016CA	430L	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
430L-9016OA	430L	D90 -16µm	Water / AquaMIM [®]	none	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
430L-9022CA	430L	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
430L-9022OA	430L	D90 -22µm	Water / AquaMIM [®]	none	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
434S-9016OA	434	D90 -16µm	Water / AquaMIM [®]	S43400	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
434S-9022OA	434	D90 -22µm	Water / AquaMIM [®]	S43400	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440B-9016OA	440B	D90 -16µm	Water / AquaMIM [®]	S44003	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440B-9022OA	440B	D90 -22µm	Water / AquaMIM [®]	S44003	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-9015AA	440C	D90 -13µm, PF-10	Water / AquaMIM [®]	S44004	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
440C-9016CA	440C	D90 -16µm	Water / AquaMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-9016OA	440C	D90 -16µm	Water / AquaMIM [®]	S44004	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
440C-9020AA	440C	D90 -20µm, PF-15	Water / AquaMIM [®]	S44004	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
440C-9022CA	440C	D90 -22µm	Water / AquaMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440C-9022OA	440C	D90 -22µm	Water / AquaMIM [®]	S44004	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
440M-9015AA	440C-MOD	D90 -13µm, PF-10	Water / AquaMIM [®]	none	Rounded	Water/Gas	1.0 - 3.5	5.0 - 7.0	10.0 - 15.0
440M-9020AA	440C-MOD	D90 -20µm, PF-15	Water / AquaMIM [®]	none	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
904L-101669OA	904L	D90 -10µm	Water / AquaMIM [®]	N08904	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
904L-161669OA	904L	D90 -16µm	Water / AquaMIM [®]	N08904	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
904L-221669OA	904L	D90 -22µm	Water / AquaMIM [®]	N08904	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0

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Metal Injection Molding Industry.

De-bind Methods Available

AquaMIM[®] = Water Debind

CataMIM[®] = Catalytic Debind

SolvMIM[®] = Solvent, Supercritical Fluid Extraction (SFE) & Thermal Debind

RYER Part No:	Material Description:	Powder Specification:	De-bind method:	UNS No.	Particle shape:	Atomization method:	Micron size at particle distribution		
							d10	d50	d90
904L-9010OA	904L	D90 -10µm	Water / AquaMIM [®]	N08904	Spherical	Gas	2.7 - 3.2	5.3 - 5.8	9.7 - 10.0
904L-9016OA	904L	D90 -16µm	Water / AquaMIM [®]	N08904	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
904L-9022OA	904L	D90 -22µm	Water / AquaMIM [®]	N08904	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
C212-9016OA	F75 (Co212-c), low carbon	D90 -16µm	Water / AquaMIM [®]	R30075	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
C212-9022OA	F75 (Co212-c), low carbon	D90 -22µm	Water / AquaMIM [®]	R30075	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
N718-9016AA	Inconel™ 718	D90 -16µm, PF-13	Water / AquaMIM [®]	N07718	Rounded	Water/Gas	2.0 - 3.8	6.0 - 8.0	13.5 - 22.5
N718-9016CA	Inconel™ 718	D90 -16µm	Water / AquaMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N718-9016OA	Inconel™ 718	D90 -16µm	Water / AquaMIM [®]	N07718	Spherical	Gas	3.0 - 4.0	7.0 - 9.0	15.0 - 16.0
N718-9020AA	Inconel™ 718	D90 -20µm, PF-15	Water / AquaMIM [®]	N07718	Rounded	Water/Gas	1.0 - 5.0	7.0 - 9.0	17.0 - 21.0
N718-9022OA	Inconel™ 718	D90 -22µm	Water / AquaMIM [®]	N07718	Spherical	Gas	3.5 - 4.5	9.0 - 11.0	20.0 - 22.0
Ti64-0022RA	6Al - 4V Titanium	-20	Water / AquaMIM [®]	R56400	Spherical	Plasma	TBD	TBD	22.0