DME Hot Runner Technology Selection Guide

JUNE 2021

www.dme.net

Resin Application Key
Good
Contact DME
Not recommended

Polymer Viscosity Key
L=Low M=Medium H=High

The values expressed in grams are for reference only and are determined by using a nominal wall thickness of 1.8mm (.070") and unfilled poly- propylene Part dimension, wall thickness, length of fill within part, mold conditions and molding parameters must also be considered.

NOTE: If flame retardant is present in the desired resin grade, please contact DME for product suitability or application guidance.

NOZZLES	TIP	Recommended Gate Diameter Range				Flow Capacity (Grams) Viscosity		
		Min (mm)	Max (mm)	Min (inch)	Max (inch)	Low MFI.16	Medium MFI 7-16	High MFI .02-7
SmartONE-04 Thermal Gate	Sprue Tip	1.0	2.0	0.040	0.080	20	15	10
	Point Gate Tip	1.0	1.9	0.040	0.075	10	10	7
SmartONE-06 Thermal Gate	Sprue Tip	2.0	3.0	0.080	0.125	500	400	225
	Point Gate Tip	1.5	2.5	0.060	0.100	175	125	80
SmartONE-08 Thermal Gate	Sprue Tip	2.5	4.0	0.100	0.160	625	575	325
	Point Gate Tip	1.5	3.1	0.060	0.125	250	175	125
SmartONE-10 Thermal Gate	Sprue Tip	2.5	5.0	0.100	0.200	850	700	425
	Point Gate Tip	1.5	3.1	0.060	0.125	310	200	150
SmartONE-12 Thermal Gate	Sprue Tip	3.0	6.0	0.125	0.236	1000	775	475
	Point Gate Tip	2.0	3.1	0.080	0.125	500	375	275
SmartONE-16 Thermal Gate	Sprue Tip	3.0	8.0	0.125	0.315	1500	1100	750
	Point Gate Tip	2.5	4.4	0.100	0.175	800	550	400
SmartONE-06 Valve Gate	Sprue Tip	1.5	2.0	0.600	0.800	400	300	150
	Direct Valve Gate Tip	1.5	2.0	0.600	0.800	225	150	90
SmartONE-08 Valve Gate	Sprue Tip	2.5	2.5	0.100	0.100	500	450	250
	Direct Valve Gate Tip	2.5	2.5	0.100	0.100	450	300	220
SmartONE-10 Valve Gate	Sprue Tip	2.5	3.0	0.100	0.125	775	625	375
	Direct Valve Gate Tip	2.5	3.0	0.100	0.125	610	460	280
SmartONE-12 Valve Gate	Sprue Tip	4.0	5.0	0.160	0.200	900	725	425
	Direct Valve Gate Tip	4.0	5.0	0.160	0.200	725	525	315
SmartONE-16 Valve Gate	Sprue Tip	5.0	7.0	0.200	0.275	1200	950	600
	Direct Valve Gate Tip	5.0	7.0	0.200	0.275	940	640	475

GENERIC PLOYMER NAME (TRADE NAME) [A=AMORPHOUS or C=CRYSTALLINE]

NOTE: THE CHART BELOW SHOWS COMMODITY RESINS IN ORANGE TYPE; ALL OTHERS ARE ENGINEERING RESINS.

TPE (Elastomer) [A]	PE (Polyethylene) [C]	PE GF (Polyethylene) [C]	PS (Polystyrene) [A]	PS GF (Polystyrene) [A]	SAN [A]	TPO [C]	PP (Polypropylene) [C]	PP GF (Polypropylene) [C]	PP TF (Polypropylene) [C]	TPU	ABS [A]	ABS/PC [A]	PMMA (Acrylic) [A]	POM (Acetal) [C]	PA (Nylon) [C]	PA GF (Nylon) [C]	PA MF GF (Minlon) [C]	PPE [A]	PPO (Noryl) [A]	PPO GF (Noryl) [A]	PBT Polyester [C]	PBT GF Polyester [C]	PET [C]	PC (Polycarbonate) [A]	PC GF (Polycarbonate) [A]	PPS [C]	PSU [A]	PSU GF [A]	PUR (Urethane) [A]	LCP [C]	PEI (Ultem) [A]	PEI GF (Ultem) [A]	PEEK [C]	PVC (Flex Vinyl) [A]
L	L	H	M	H	M	L	M	H	M	M	M	H	H	M	L	H	H	H	H	H	H	H	L	H	H	M	H	H	L	L	H	H	H	M

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NOZZLES	TIP	Recommended Gate Diameter Range Min (mm)	Max (mm)	Min (inch)	Max (inch)	Flow Capacity (Grams) Viscosity Low MFI.16	Medium MFI 7-16	High MFI .02-7	TPE (Elastomer) [A]	PE (Polyethylene) [C]	PE GF (Polyethylene) [C]	PS (Polystyrene) [A]	PS GF (Polystyrene) [A]	SAN [A]	TPO [C]	PP (Polypropylene) [C]	PP GF (Polypropylene) [C]	PP TF (Polypropylene) [C]	TPU	ABS [A]	ABS/PC [A]	PMMA (Acrylic) [A]	POM (Acetal) [C]	PA (Nylon) [C]	PA GF (Nylon) [C]	PA MF GF (Minlon) [C]	PPE [A]	PPO (Noryl) [A]	PPO GF (Noryl) [A]	PBT Polyester [C]	PBT GF Polyester [C]	PET [C]	PC (Polycarbonate) [A]	PC GF (Polycarbonate) [A]	PPS [C]	PSU [A]	PSU GF [A]	PUR (Urethane) [A]	LCP [C]	PEI (Ultem) [A]	PEI GF (Ultem) [A]	PEEK [C]	PVC (Flex Vinyl) [A]
									L	L	H	M	H	M	L	M	H	M	M	M	H	H	M	L	H	H	H	H	H	H	L	H	H	M	H	H	L	L	H	H	H	M
Stellar High Performance Heater	Sprue Tip	2.0	2.0	0.080	0.080	20	15	10																																			
	Standard Point Gate Tip	0.7	1.9	0.028	0.075	10	10	10																																				
	Wear Resistant Point Gate Tip	1.3	1.9	0.050	0.075	10	10	10																																				
Hot One 250 Series (Coil Heater)	Sprue Tip	2.0	3.1	0.080	0.125	625	475	315																																				
	Standard Point Gate Tip	0.7	2.5	0.028	0.100	200	150	100																																				
Hot One 250 Series (Cast-in Heater)	Sprue Tip	2.0	3.1	0.080	0.125	625	475	315																																				
	Wear Resistant Point Gate Tip	0.7	2.5	0.060	0.100	200	150	100																																				
Hot One 375 Series (Coil Heater)	Sprue Tip	3.2	4.7	0.125	0.187	1000	750	450																																				
	Standard Point Gate Tip	0.7	3.1	0.028	0.125	310	200	150																																				
Hot One 375 Series (Cast-in Heater)	Sprue Tip	3.2	4.7	0.125	0.187	1000	750	450																																				
	Wear Resistant Point Gate Tip	0.7	3.1	0.060	0.125	310	200	150																																				
Hot One 625 Series (Coil Heater)	Sprue Tip	4.7	7.9	0.187	0.312	1500	1100	750																																				
	Standard Point Gate Tip	3.2	4.4	0.125	0.175	800	550	400																																				
Hot One 625 Series (Cast-in Heater)	Sprue Tip	4.7	7.9	0.187	0.187	1500	1100	750																																				
	Wear Resistant Point Gate Tip	3.2	4.4	0.125	0.175	800	550	400																																				
Raduis Hot Sprue Bushings	S-Series & T-Series	4.1	4.1	0.160	0.160	700	500	300																																				
	E-Series	1.5	1.5	0.060	0.060	300	150	50																																				
	ER-Series & TR-Series	3.2	3.2	0.125	0.125	500	300	200																																				
	High Performance Series	1.6	1.6	0.062	0.062	300	150	50																																				
		3.2	3.2	0.125	0.125	500	300	200																																				
D-MAX 250 Series High Performance	Sprue Tip	2.0	3.1	0.080	0.125	700	500	350																																				
	Standard Point Gate Tip	1.3	2.5	0.050	0.100	250	175	125																																				
	Wear Resistant Point Gate Tip	1.5	2.5	0.060	0.100	250	175	125																																				
D-MAX 375 Series High Performance	Sprue Tip	3.2	4.7	0.125	0.187	1100	800	500																																				
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	Wear Resistant Point Gate Tip	1.5	3.1	0.060	0.125	350	250	200																																				
D-MAX 625 Series High Performance	Sprue Tip	1.7	7.9	0.187	0.312	1600	1200	850																																				
	Standard Point Gate Tip	3.0	4.4	0.125	0.175	900	650	500																																				
	Wear Resistant Point Gate Tip	3.0	4.4	0.125	0.175	900	650	500																																				

Available only as a DME Designed and Manufactured Manifold & Components or Fully Assembled and Wired Hot Half

Available from the catalog as Components only or a DME designed and manufactured Manifold & Components or Fully Assembled and Wiored Hot Half