

## ALLROUNDER 1300 T

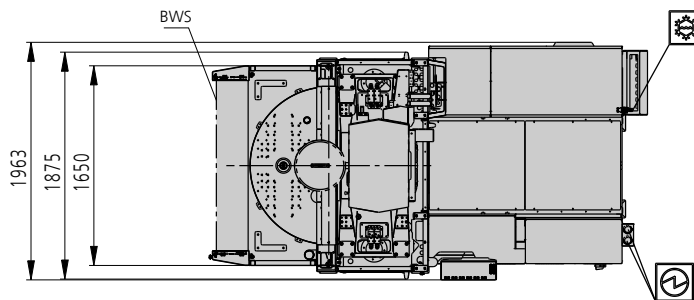
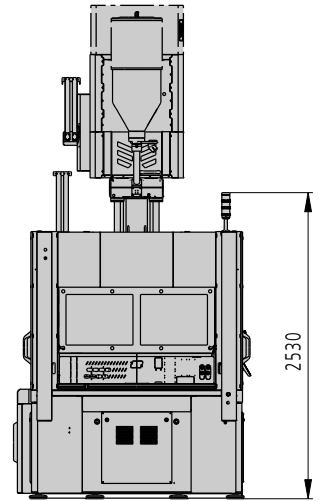
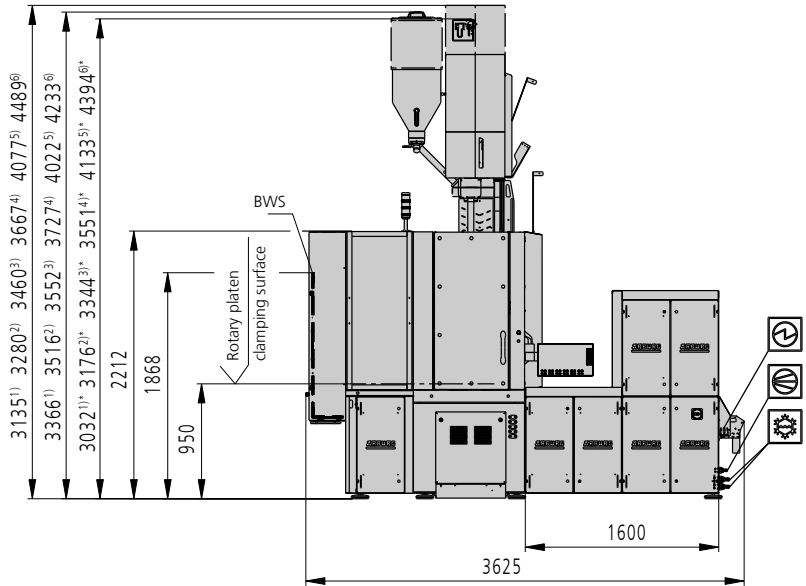
Table diameter: 1300 mm




Clamping force: 1000, 1600 kN

Injection unit (according to EUROMAP):  
70, 100, 170, 290, 400, 800

**ARBURG**

# INSTALLATION DIMENSIONS | 1300 T



-  Pneumatic connection
-  Electrical connection
-  Cooling water connection

\* Load fixing point for hoisting equipment with raised injection unit  
 BWS - non-contacting safety device (light curtain)  
 1) Dimensions for injection unit 70  
 2) Dimensions for injection unit 100  
 3) Dimensions for injection unit 170  
 4) Dimensions for injection unit 290  
 5) Dimensions for injection unit 400  
 6) Dimensions for injection unit 800

# TECHNICAL DATA | 1300 T

Clamping unit			1300 T
with clamping force	max. kN		1000
Opening force   stroke	max. kN   mm		115   300
Mould height, fixed   variable	min. mm		300   ---
Platen daylight fixed   variable	max. mm		600   ---
Table diameter	mm		1300
Angle of rotation, left/right			180°
Rotation time for 180°	min. s		1,6
Weight on rotary table	max. kg		1000
Weight of movable mould half	max. kg		500
Ejector force   stroke	max. kN   mm		45   175
Dry cycle time EUROMAP <sup>2</sup>	2 pumps	min. s - mm	3,7 - 240
	Accum.	min. s - mm	---

Injection unit			70			100		
with screw diameter	mm		18	22	25	20	25	30
Effective screw length	L/D		24,5	20	17,5	25	20	16,7
Screw stroke	max. mm		90			100		
Calculated stroke volume	max. cm <sup>3</sup>		23	34	44	31	49	71
Shot weight	max. g PS		21	31	40	29	45	65
Material throughput	max. kg/h PS		4,1	5,5	6,5	5,5	8	9,5
	max. kg/h PA6.6		2,1	2,8	3,3	2,8	4	4,9
Injection pressure	max. bar		2500	2000	1550	2500	2000	1390
Holding pressure	max. bar		2500	2000	1550	2500	2000	1390
Injection flow <sup>2</sup>	2 pumps	max. cm <sup>3</sup> /s	68	100	130	90	142	204
	Accum.	max. cm <sup>3</sup> /s	138	208	268	172	268	388
Screw circumferential speed <sup>2</sup>	2 pumps	max. m/min	45	55	62	32	40	48
	Accum.	max. m/min	15	19	22	11	14	17
Screw torque	max. Nm		90	110	120	120	150	180
Nozzle contact force   retraction stroke	max. kN   mm		50   250			50   280		
Heating capacity   zones	kW		4,1   4			4,9   5		
Feed hopper	l		25			50		

Drive and connection			2 pumps		Accum.	
with injection unit			70	100	70	100
Net weight of machine	kg		7200		---	
Sound press. level   Insecurity <sup>4</sup>	dB(A)		70   3		70   3	
Oil filling	l		260		260	
Drive power <sup>2</sup>	max. kW		18,5		---	
Electrical connection <sup>3</sup>	kW		28		---	
	Total	A	100		---	
	Machine	A	---		---	
Cooling water connection	max. °C		30		30	
	min. Δp bar		1,5   DN 25		1,5   DN 25	

## Machine type

with EUROMAP size designation <sup>1</sup>

1300 T 1000-70 | 100

**Upon request: other machine models and mould installation heights, plasticising screws, drive powers, etc.**  
All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm<sup>3</sup>) x max. injection pressure (kbar)
  - 2) Specifications depend on the drive variant / drive configuration.
  - 3) Specifications relate to 400 V/50 Hz.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions
- [ ] Specifications apply to alternative equipment.

# TECHNICAL DATA | 1300 T

Clamping unit			1300 T	
with clamping force	max. kN		1000	
Opening force   stroke	max. kN   mm		115   300	
Mould height, fixed   variable	min. mm		300   ---	
Platen daylight fixed   variable	max. mm		600   ---	
Table diameter	mm		1300	
Angle of rotation, left/right			180°	
Rotation time for 180°	min. s		1,6	
Weight on rotary table	max. kg		1000	
Weight of movable mould half	max. kg		500	
Ejector force   stroke	max. kN   mm		45   175	
Dry cycle time EUROMAP <sup>2</sup>	2 pumps	min. s - mm	3,7 - 240	
	Accum.	min. s - mm	---	

Injection unit			170			290			400		
with screw diameter	mm		25	30	35	30	35	40	35	40	45
Effective screw length	L/D		24	20	17	23,3	20	17,5	23	20	18
Screw stroke	max. mm		120			150			160		
Calculated stroke volume	max. cm <sup>3</sup>		59	85	115	106	144	188	154	201	254
Shot weight	max. g PS		54	77	105	97	132	172	141	184	232
Material throughput	max. kg/h PS		10	13,5	16	17	20,5	24,5	25	29	35
	max. kg/h PA6.6		5	7	8	8,5	10,5	12,5	12,5	15	17,5
Injection pressure	max. bar		2500	2000	1470	2500	2000	1530	2500	2000	1580
Holding pressure	max. bar		2500	2000	1470	2500	2000	1530	2500	2000	1580
Injection flow <sup>2</sup>	2 pumps	max. cm <sup>3</sup> /s	120	172	236	130	178	232	128	168	212
	Accum.	max. cm <sup>3</sup> /s	216	312	424	316	430	562	492	642	814
Screw circumferential speed <sup>2</sup>	2 pumps	max. m/min	63	75	80	59	69	79	47	53	60
	Accum.	max. m/min	14	17	19	20	24	27	16	19	21
Screw torque	max. Nm		210	250	290	320	380	430	480	550	610
Nozzle contact force   retraction stroke	max. kN   mm		50   300			60   300			60   400		
Heating capacity   zones	kW		9,4   5			6,4   5			9,4   5		
Feed hopper	l		50			50			50		

Drive and connection			2 pumps			Accum.					
with injection unit			170	290	400	170	290	400			
Net weight of machine	kg		7300	7400	7600	---					
Sound press. level   Insecurity <sup>4</sup>	dB(A)		70   3			70   3					
Oil filling	l		260			260					
Drive power <sup>2</sup>	max. kW		18,5	18,5	22	---					
Electrical connection <sup>3</sup>		kW	33	30	36	---					
	Total	A	100			---					
	Machine	A	---			---					
	Heating	A	---			---					
Cooling water connection	max. °C		30			30					
	min. Δp bar		1,5   DN 25			1,5   DN 25					

**Machine type**  
with EUROMAP size designation <sup>1</sup>  
1300 T 1000-170 | 290 | 400

**Upon request: other machine models and mould installation heights, plasticising screws, drive powers, etc.**  
All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm<sup>3</sup>) x max. injection pressure (kbar)
  - 2) Specifications depend on the drive variant / drive configuration.
  - 3) Specifications relate to 400 V/50 Hz.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions
- [ ] Specifications apply to alternative equipment.

# TECHNICAL DATA | 1300 T

Clamping unit			1300 T		
with clamping force	max. kN		1600		
Opening force   stroke	max. kN   mm		115   300		
Mould height, fixed   variable	min. mm		300   ---		
Platen daylight fixed   variable	max. mm		600   ---		
Table diameter	mm		1300		
Angle of rotation, left/right			180°		
Rotation time for 180°	min. s		1,6		
Weight on rotary table	max. kg		1000		
Weight of movable mould half	max. kg		500		
Ejector force   stroke	max. kN   mm		45   175		
Dry cycle time EUROMAP <sup>2</sup>	2 pumps	min. s - mm	3,7 - 240		
	Accum.	min. s - mm	---		

Injection unit			100			170		
with screw diameter	mm		20	25	30	25	30	35
Effective screw length	L/D		25	20	16,7	24	20	17
Screw stroke	max. mm		100			120		
Calculated stroke volume	max. cm <sup>3</sup>		31	49	71	59	85	115
Shot weight	max. g PS		29	45	65	54	77	105
Material throughput	max. kg/h PS		5,5	8	9,5	10	13,5	16
	max. kg/h PA6.6		2,8	4	4,9	5	7	8
Injection pressure	max. bar		2500	2000	1390	2500	2000	1470
Holding pressure	max. bar		2500	2000	1390	2500	2000	1470
Injection flow <sup>2</sup>	2 pumps	max. cm <sup>3</sup> /s	90	142	204	120	172	236
	Accum.	max. cm <sup>3</sup> /s	172	268	388	216	312	424
Screw circumferential speed <sup>2</sup>	2 pumps	max. m/min	32	40	48	63	75	80
	Accum.	max. m/min	11	14	17	14	17	19
Screw torque	max. Nm		120	150	180	210	250	290
Nozzle contact force   retraction stroke	max. kN   mm		50   280			50   300		
Heating capacity   zones	kW		4,9   5			9,4   5		
Feed hopper	l		50			50		

Drive and connection			2 pumps		Accum.	
with injection unit			100	170	100	170
Net weight of machine	kg		7200		---	
Sound press. level   Insecurity <sup>4</sup>	dB(A)		70   3		70   3	
Oil filling	l		260		260	
Drive power <sup>2</sup>	max. kW		18,5		---	
Electrical connection <sup>3</sup>	kW		28		---	
	Total	A	100		---	
	Machine	A	---		---	
	Heating	A	---		---	
Cooling water connection	max. °C		30		30	
	min. Δp bar		1,5   DN 25		1,5   DN 25	

## Machine type

with EUROMAP size designation <sup>1</sup>

1300 T 1000-70 | 100

**Upon request: other machine models and mould installation heights, plasticising screws, drive powers, etc.**  
All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm<sup>3</sup>) x max. injection pressure (kbar)
  - 2) Specifications depend on the drive variant / drive configuration.
  - 3) Specifications relate to 400 V/50 Hz.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions
- [ ] Specifications apply to alternative equipment.

# TECHNICAL DATA | 1300 T

Clamping unit			1300 T		
with clamping force	max. kN		1600		
Opening force   stroke	max. kN   mm		115   300		
Mould height, fixed   variable	min. mm		300   ---		
Platen daylight fixed   variable	max. mm		600   ---		
Table diameter	mm		1300		
Angle of rotation, left/right			180°		
Rotation time for 180°	min. s		1,6		
Weight on rotary table	max. kg		1000		
Weight of movable mould half	max. kg		500		
Ejector force   stroke	max. kN   mm		45   175		
Dry cycle time EUROMAP <sup>2</sup>	2 pumps	min. s - mm	3,7 - 240		
	Accum.	min. s - mm	---		

Injection unit			290			400			800		
with screw diameter	mm		30	35	40	35	40	45	45	50	55
Effective screw length	L/D		23,3	20	17,5	23	20	18	22	20	18
Screw stroke	max. mm		150			160			200		
Calculated stroke volume	max. cm <sup>3</sup>		106	144	188	154	201	254	318	392	474
Shot weight	max. g PS		97	132	172	141	184	232	291	359	434
Material throughput	max. kg/h PS		17	20,5	24,5	25	29	35	46	53	59
		max. kg/h PA6.6	8,5	10,5	12,5	12,5	15	17,5	23	27	30
Injection pressure	max. bar		2500	2000	1530	2500	2000	1580	2470	2000	1650
Holding pressure	max. bar		2500	2000	1530	2500	2000	1580	2470	2000	1650
Injection flow <sup>2</sup>	2 pumps	max. cm <sup>3</sup> /s	130	178	232	128	168	212	174	214	260
	Accum.	max. cm <sup>3</sup> /s	316	430	562	492	642	814	530	656	792
Screw circumferential speed <sup>2</sup>	2 pumps	max. m/min	47	53	60	47	53	60	59	69	79
	Accum.	max. m/min	20	24	27	16	19	21	15	17	19
Screw torque	max. Nm		320	380	430	480	550	610	880		
Nozzle contact force   retraction stroke	max. kN   mm		60   300			60   400			70   400		
Heating capacity   zones	kW		6,4   5			9,4   5			19,9		
Feed hopper	l		50			50			---		

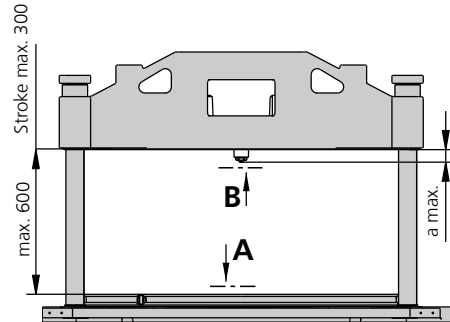
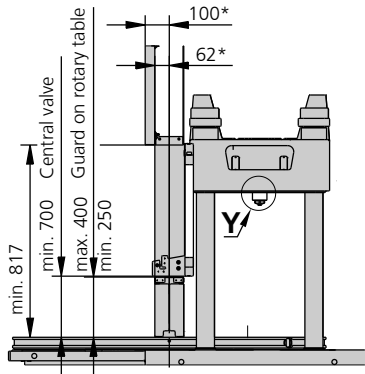
Drive and connection			2 pumps			Accum.					
with injection unit			290	400	800	290	400	800			
Net weight of machine	kg		7300	7400	7600	---					
Sound press. level   Insecurity <sup>4</sup>	dB(A)		70   3			70   3					
Oil filling	l		260			260					
Drive power <sup>2</sup>	max. kW		18,5	18,5	22	---					
Electrical connection <sup>3</sup>		kW	33	30	36	---					
	Total	A	100			---					
	Machine	A	---			---					
	Heating	A	---			---					
Cooling water connection	max. °C		30			30					
	min. Δp bar		1,5   DN 25			1,5   DN 25					

**Machine type**  
with EUROMAP size designation <sup>1</sup>  
1300 T 1600-290 | 400 | 800

**Upon request: other machine models and mould installation heights, plasticising screws, drive powers, etc.**  
All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

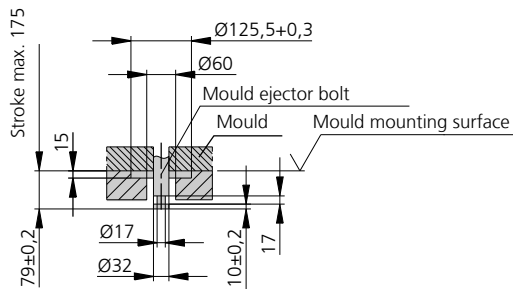
- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm<sup>3</sup>) x max. injection pressure (kbar)
  - 2) Specifications depend on the drive variant / drive configuration.
  - 3) Specifications relate to 400 V/50 Hz.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions
- [ ] Specifications apply to alternative equipment.

# MOULD INSTALLATION DIMENSIONS | 1300 T



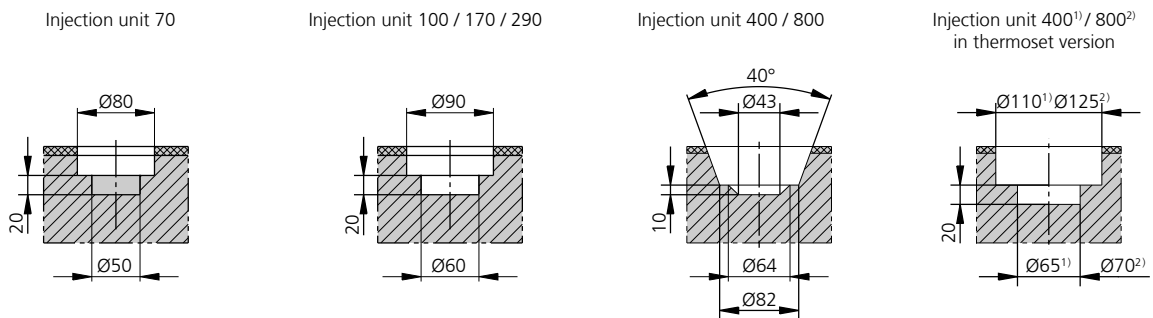
\*dimensions from table centre  
(projecting edge protection + sliding guard)

## Ejector bolt



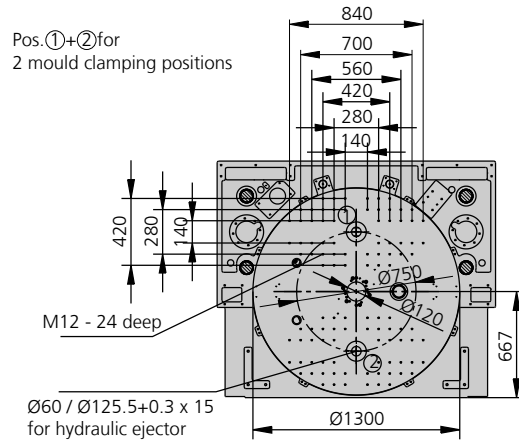
a max.	Injection position for injection unit	
	70 / 100 / 170 / 290	400 / 800
Standard	35	50
Thermoset	15	50

## Cut-out in injection mould (if required) | Y

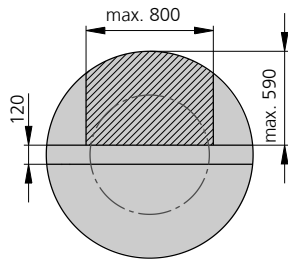


# MOULD INSTALLATION DIMENSIONS | 1300 T

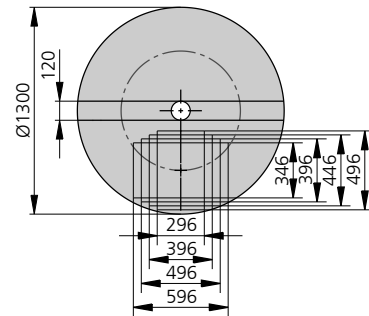
## Rotary table Ø1300 | A



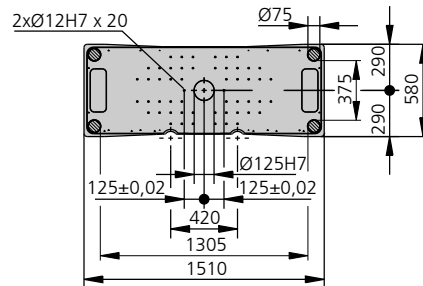
## Usable mould mounting surface



## Mould grid dimensions 2-station mould



## Moving mould mounting platen | B





# SHOT WEIGHTS | 1300 T

## Theoretical shot weights for the most important injection moulding materials

Injection units according to EUROMAP		70			100			170		
Screw diameter	mm	18	22	25	20	25	30	25	30	35
Polystyrene	max. g PS	21	31	40	29	45	65	54	77	105
Styrene heteropolymerizates	max. g SB	20	31	39	28	44	63	53	76	103
	max. g SAN, ABS <sup>1)</sup>	20	30	39	27	43	62	52	74	101
Cellulose acetate	max. g CA <sup>1)</sup>	24	35	45	32	50	73	61	87	119
Celluloseacetobutyrate	max. g CAB <sup>1)</sup>	22	33	42	30	47	68	56	81	110
Polymethyl methacrylate	max. g PMMA	22	32	42	30	46	67	56	80	109
Polyphenylene ether, mod.	max. g PPE	19	29	37	27	42	60	50	72	98
Polycarbonate	max. g PC	22	33	42	30	47	68	57	81	111
Polysulphone	max. g PSU	23	34	44	31	49	70	58	84	115
Polyamides	max. g PA 6.6   PA 6 <sup>1)</sup>	21	31	40	28	44	64	53	77	104
	max. g PA 6.10   PA 11 <sup>1)</sup>	19	29	37	26	41	60	50	72	98
Polyoximethylene (Polyacetal)	max. g POM	26	39	50	35	55	80	66	96	130
Polyethylene terephthalate	max. g PET	25	37	48	34	53	77	64	92	126
Polyethylene	max. g PE-LD	16	24	30	22	34	49	41	59	80
	max. g PE-HD	16	24	31	22	35	50	42	60	82
Polypropylene	max. g PP	17	25	32	23	36	51	43	62	84
Fluoropolymerides	max. g FEP, PFA, PCTFE <sup>1)</sup>	33	50	65	46	72	103	86	124	169
	max. g ETFE	29	44	57	40	63	91	76	109	148
Polyvinyl chloride	max. g PVC-U	25	38	49	35	54	78	65	94	127
	max. g PVC-P <sup>1)</sup>	23	35	45	32	50	72	60	87	118

Injection units according to EUROMAP		290			400			800		
Screw diameter	mm	30	35	40	35	40	45	45	50	55
Polystyrene	max. g PS	97	132	172	141	184	232	291	359	434
Styrene heteropolymerizates	max. g SB	95	129	168	137	179	227	284	350	424
	max. g SAN, ABS <sup>1)</sup>	93	126	165	135	176	223	278	344	416
Cellulose acetate	max. g CA <sup>1)</sup>	109	148	194	158	207	262	327	404	488
Celluloseacetobutyrate	max. g CAB <sup>1)</sup>	101	138	180	147	192	243	304	375	454
Polymethyl methacrylate	max. g PMMA	100	136	178	145	190	240	300	371	449
Polyphenylene ether, mod.	max. g PPE	90	122	160	131	171	216	270	333	403
Polycarbonate	max. g PC	102	139	181	148	193	244	305	377	456
Polysulphone	max. g PSU	105	143	187	153	199	252	316	390	471
Polyamides	max. g PA 6.6   PA 6 <sup>1)</sup>	96	131	171	140	183	231	289	357	431
	max. g PA 6.10   PA 11 <sup>1)</sup>	90	122	160	131	171	216	270	333	403
Polyoximethylene (Polyacetal)	max. g POM	120	163	213	174	227	287	359	443	536
Polyethylene terephthalate	max. g PET	115	157	205	167	219	277	346	427	517
Polyethylene	max. g PE-LD	73	100	130	106	139	176	219	271	328
	max. g PE-HD	76	103	134	110	143	181	227	280	339
Polypropylene	max. g PP	77	105	137	112	146	185	232	286	346
Fluoropolymerides	max. g FEP, PFA, PCTFE <sup>1)</sup>	155	211	276	225	294	372	465	574	695
	max. g ETFE	136	185	242	196	256	324	408	504	609
Polyvinyl chloride	max. g PVC-U	117	159	208	170	222	281	351	434	525
	max. g PVC-P <sup>1)</sup>	108	147	192	157	205	260	324	401	485

1) average value

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