Common Processing Guide

ChasePlastics®
Redefining Resin Distribution®

	Abbreviation	Material	Specific Gravity (g/cm^3)	Drying Time (hrs.)	Drying Temperature (°F)	Dew Point (°F)	Target End Moisture (%)	Mold Temperature (°F)	Melt Temperature (°F)	Mold Shrinkage (in/in)
Hygroscopic	ABS	**Acrylonitrile Butadiene Styrene**	1.03-1.07	2 to 4	158-176	n/a	0.05 - 0.10	100-160	410-465	.004-.007
	ABS FR	**Acrylonitrile Butadiene Styrene *Flame Retardant***	1.19	3 to 4	176-194	n/a	0.05 - 0.10	100-140	390-450	.004-.007
	ASA	**Acrylonitrile Styrene Acrylate**	1.07	2 to 3	175-195	n/a	<0.10	100-175	390-445	.004-.007
	COPE/TPC	**Copolyester Elastomer*** **	1.23-1.29	3 to 4	190-210	-40	0.02	68-105	410-465	.013-.017
	–	**Copolyesters*** **	1.25-1.27	3 to 6	160	-20	0.02	100-160	480-540	.002-.005
	PBT	**Polybutylene Terephthalate*** **	1.30	4 to 5	248	-40	<0.04	140-212	480-520	.017-.020
	PC/ABS	**Polycarbonate/Acrylonitrile Butadiene Styrene Alloy*** **	1.08-1.22	4 to 6	140-176	-20	<0.05	120-160	445-500	.004-.006
	PC/ABS FR	**Polycarbonate/Acrylonitrile Butadiene Styrene *Flame Retardant**** **	1.08-1.22	4 to 5	175-185	-20	<0.05	130-170	455-510	.005-.008
	PC/Polyester	**Polycarbonate/Polyester Alloy*** **	1.20-1.28	4 to 5	250	-40	<0.03	80-180	465-480	.013-.015
	PEEK	**Polyetheretherketone**	1.30	2 to 3	320	-20	<0.10	320-400	680-720	.009-.011
	PEI	**Polyetherimide**	1.27	4 to 6	300	-20	<0.04	275-325	660-750	.005-.007
	PES/PESU	**Polyethersulfone**	1.37	3 to 4	350	-20	<0.05	245-305	660-680	.005-.007
	PET	**Polyethylene Terephthalate*** **	1.40	2 to 4	275	-40	<0.02	140-290	470-560	.010-.017
	PMMA	**Polymethyl Methacrylate (Acrylic)**	1.18	2 to 5	165-200**	0	0.05 - 0.10	120-220	360-520	.002-.006
	PA 12	**Polyamide 12*** **	1.01	2 to 4	175-210	-20	<0.10	90-220	390-535	.006-.012
	PA 6	**Polyamide 6*** **	1.13	2 to 4	180	-20	0.05 - 0.25	120-180	460-530	.010-.014
	PA 6/12	**Polyamide 6/12*** **	1.06	2 to 4	180	-20	0.10 - 0.25	90-220	450-550	.010-.014
	PA 6/6	**Polyamide 6/6*** **	1.14	2 to 4	175	-20	0.08 - 0.28	150-205	545-575	.017-.022
	PC	**Polycarbonate*** **	1.20	3 to 5	250	-20	<0.03	150-250	500-590	.005-.007
	PUR/TPU	**Thermoplastic Polyurethane*** **	1.12-1.23	1 to 4	180-220**	-40	<0.02	70-160	370-410	.008-.025
	POM	**Polyoxymethylene (Acetal)**	1.41	1 to 4	160-245	n/a	0.10	140-180	370-410	.018-.022
	PPA	**Polyphthalamide*** **	1.13-1.20	3 to 4	250	-20	0.15	175-350	610-650	.010-.021
	PSU	**Polysulfone**	1.38	3 to 4	275-300	-20	<0.05	275-320	660-690	.005-.009
	SAN	**Styrene Acrylonitrile**	1.07	2 to 4	160-200	n/a	0.10	105-180	375-450	.004-.007
Non-Hygroscopic	EVA	**Ethylene Vinyl Acetate**	.935-.955	3	120-150	n/a	0.05	50-70	300-400	.002-.007
	PE	**Polyethylene***	.915-.965	2 to 3	120-150	n/a	0.05	70-150	380-450	.015-.025
	PP	**Polypropylene***	.898-.910	1 to 2	150-180	n/a	0.05	60-120	400-450	.017-.022
	mPPO	**Modified Polyphenylene Oxide**	1.06	3 to 4	200-230**	n/a	0.05	160-220	540-610	.005-.007
	PS/GPPS*	**Polystyrene***	1.04	1 to 2	140-180	n/a	0.05	100-160	420-475	.004-.007
	PPS	**Polyphenylene Sulfide**	1.68	2	300	-40	0.04	275-300	580-650	.002-.005
	FPVC	**Flexible Polyvinyl Chloride**	1.15-1.48	1 to 2	140-150	n/a	0.10	70-100	330-390	.010-.024
	RPVC	**Rigid Polyvinyl Chloride**	1.33-1.50	1 to 2	140-150	n/a	0.10	60-120	350-390	.003-.005
	TPE-S	**Styrenic Thermoplastic Elastomer**	0.98-1.10	2 to 4	150	n/a	0.10	40-150	400-480	.008-.015
	TPO	**Thermoplastic Olefin**	.898-1.16	1 to 2	150-180	n/a	0.15	60-120	390-450	.008-.016
	TPV	**Thermoplastic Vulcanizate**	.930-.968	3 to 4	175	n/a	0.06	80-150	380-450	.011-.023

* Material typically does not require drying
** Required drying temperatures are grade specific
*** Material will degrade with excess moisture

"Disclaimer: values on this guide are based on unreinforced (except PPS where 40% glass is most common) materials sold through Chase Plastics and are intended for injection molding. Values may vary between different grades and different manufacturers of materials. For grade-specific values check the datasheet or work with your Chase Plastics' representative to get the processing parameters for the exact grade you purchased."

Service and solutions that mean success

We're committed to providing you with solutions that aren't just built around your needs, but actually help build your business. From day one, each of our customers work with a unique personalized team comprised of dedicated individuals from sales, technical service, application development, customer service, credit, and logistical management.

Material selection

Choosing the best material for a new or existing application can be difficult. Our team specializes in finding the ideal product that fits the needs of the application and our customer.

Processing assistance

Whether over the phone, via video chat, or in person, we are prepared to help get your processes and materials running smoothly and efficiently. From prototype runs to troubleshooting, our engineers can provide insight on optimizing various thermoplastic processes.

Design review

With years of processing experience, the Chase technical team can offer critical advice on part and tool design to help ensure manufacturing ease and failure avoidance.

Parts and materials testing

By partnering with accredited labs all throughout North America, we are ready to tackle your mechanical, chemical, and physical testing needs.

Metal-to-plastic conversions

Increasing complexity and calls for lighter parts continue to push the boundaries of metal component replacements with plastic. Allow us to bring experience and a broad engineering thermoplastic portfolio to find a durable alternative to metal.

Educational training

The Chase technical team has the information, knowledge and willingness to educate our valued customers on products and processing for continuous improvement. These events can be customized around your team's needs at your facility, our headquarters, or an independent site.

Access to technical tools

Regulatory Approval Details - UL, Automotive, FDA, NSF, USP Class VI, REACH/RoHS/California Prop 65, Conflict Minerals

- Datasheets and Processing Guides
- Material Safety Datasheets (SDS)
- Product certifications
- Product brochures and chips/plaques

Whether you have an existing application that you would like to improve upon or make lighter, or an idea for a new one sketched on a napkin, we're up to the challenge. Call 844-411-CHASE or email us at 411Chase@chaseplastics.com

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