

# Common Processing Guide

Abbreviation	Material	Specific Gravity (g/cm <sup>3</sup> )	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 <i>Flame Retardant</i>	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 <i>Flame Retardant</i> ***	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 4/6	Polyamide 4/6***	1.18	2 to 4	180	-20	0.05	175-250	590-610	.019-.021
	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 and services that aren't just built around your needs, but actually help build your business.

## 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.

## 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 design assistance, the Chase technical team can offer critical advice on part and tool design to help ensure manufacturing ease and mitigate risk.

## Parts and materials testing

In addition to our supplier capabilities, we partner with accredited labs all throughout North America. We are ready to tackle your mechanical, chemical, and physical testing needs.

## Metal-to-plastic conversions

Increasing part complexity and demand 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 (MSDS)
- ▶ Product certifications
- ▶ Product brochures and chips/plaques



Have an existing application that you would like to improve upon or make lighter, or an idea for a new one? We're up to the challenge! Call 844-411-CHASE or email us at [411Chase@chaseplastics.com](mailto:411Chase@chaseplastics.com)

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