

# RTP Company Nomenclature

RTP Company uses a nomenclature system to identify and describe our specialty compounded thermoplastic products. This brief overview does not include of all aspects of our system.

RTP Company nomenclature syntax:

Prefix #1 #2 #3 #4 Suffix Color

### **Prefix**

CCP Custom Compounded Products
EMI EMI/RFI Shielding Compounds
ESD Electrostatic Dissipative Compounds

ESP Extruded Sheet Product FCX Foam Concentrates

PermaStat® Permanently Anti-static Compounds

RTP Standard Product Designator

VLF Very Long Fiber

# #1 & #2 digits

Identifies the base polymer.

See the last page of this document for a complete list of RTP Series.

Resin systems are numbered sequentially 01 through 47, with 01 representing polypropylene, 02 nylon, 03 polycarbonate, etc.

The leading zero on Series 01 through 09 is often dropped for simplicity.

Resin systems that have an alphabetical character immediately following the fourth digit use an alternate base polymer (ie: 200A signifies nylon 6, 200B nylon 6/10, 200C nylon 11, etc.).

# #3 digit

Identifies the primary additive/filler.

- 0 Glass Fiber
- 1 Glass Fiber
- 2 Talc
- 2 Glass Fiber/Glass Bead Blend
- 3 Talc or Mineral
- 3 Glass Fiber/Stainless Steel Blend
- 4 Calcium Carbonate or Mica
- 5 Flame Retardant
- 6 Stainless Steel Fiber
- 7 Glass Fiber/Mineral Blends
- 8 Carbon Fiber
- 9 Carbon Fiber

## #4 digit

Identifies the loading level of the primary additive/filler.

For glass fiber (third digit of 0 or 1) and carbon fiber (third digit of 8 or 9) reinforced compounds the following percentage scale is used with regard to loading levels. (# x 5 + 5 = %)

0	Neat/Base	5	30%	10	55%
1	10%	6	35%	11	60%
2	15%	7	40%	12	65%
3	20%	8	45%	13	70%
4	25%	9	50%	14	75%

Decimals between 0.1 and 0.9 are used for loading levels of less than 10%.

Other primary additives/fillers identified by the third digit may use different scales to indicate their loading level.

#### **Suffix**

UV

Z

Ultraviolet Stabilized

**FDA Compliant Ingredients** 

Used for grade designations or for identifying secondary additives/fillers.

```
AR
       Aramid Fiber (%)
CC
       Chemically Coupled
       Carbon Fiber (%) - Only used when combined with glass fiber
CF
ΕM
       Easy Mold
EG
       Extrusion Grade
F
       Foaming Agent
FR
       Flame Retardant
FR A
       Updated FR formulation
FR NH Halogen-Free FR System
       Glass Bead (%)
GB
HB
       UL94 HB Flammability Rating
HEC
       Highly Electrically Conductive (%) - Nickel-coated carbon fiber
HF
       High Flow
Н
       High Impact
       High Modulus
HM
HS
       Heat Stabilized
L
       Lubricated
LE
       Low Extractable
LF
       Low Flow
LP
       Low Plate-out
M
       Mineral (%)
MF
       Medium Flow
MG
       Milled Glass (%)
MS
       Molybdenum Disulfide (%)
NS
       No Substitutes
SE
       Self Extinguishing
SI
       Silicone (%)
SP
       Small Pellet
TFE
       PTFE (%)
```

When any of the above suffixes marked with a "(%)" have a number following them, this number identifies the loading of this additive.

# X Series products

RTP Company materials that follow the numbering convention #1 #2 99 X # # # # # are our custom and/or proprietary-formulated compounds. The five or six digits after the "99 X" denote an engineering notebook page number and do not identify additives/fillers or loading levels.

## Color numbers

Natural No pigments added

Black Standard amount of black pigment or material is inherently black Nat/Blk Carbon fiber product (or other dark filler) with no pigment

Blk/Blk More than the standard amount of black pigment or carbon fiber product with

standard amount of black pigment

S-#### Standard color
SL-#### Laser-markable
SS-#### Straight shot color

SSL-#### Straight shot laser-markable

Z-#### FDA compliant color

ZL-#### FDA compliant laser-markable

The numeric digits of a color number are assigned in sequential order as a unique identifier and are not part of any scale to indicate color hue.

Series Base Resin System  100 Polypropylene 200 Nylon 6/6	Abbreviation PP
	FF
1200 INVIOLI 6/6	PA 6/6
1	PA 6/6
200 A Nylon 6 200 B Nylon 6/10	PA 6/10
	PA 11
•	PA 6/12
	PA 6/12
· · · · · · · · · · · · · · · · · · ·	
200 F Nylon 12 200 G Nylon 4/6	PA 12
200 H Impact-Modified Nylon 6/6	PA 6/12 PA 6/6
200 K Polyarylamide	PAA
300 Polycarbonate	PC
300 B High Flow Polycarbonate	PC
1	PS
400 Polystyrene 500 Styrene Acrylonitrile	SAN
600 Acrylonitrile Butadiene Styrene	ABS
700 High Density Polyethylene	HDPE
700 A Low Density Polyethylene 800 Acetal	LDPE POM
	PSU
900 Polysulfone 1000 Polybutylene Terephthalate	PBT
	· = ·
1100 Polyethylene Terephthalate	PET PETG
1100 A Polyethylene Terephthalate Glycol Modified	-
1200 Thermoplastic Polyurethane Elastomer	TPU
1200 M Thermoplastic Polyurethane Elastomer	TPU
1200 S Ester-based Thermoplastic Polyurethane Elastomer	TPU TPU
1200 T Ether-based Thermoplastic Polyurethane Elastomer	-
1300 Polyphenylene Sulfide	PPS PES
1400 Polyethersulfone	-
1500 Polyether-Ester Block Copolymer Thermoplastic Elastomer 1600 See RTP 1400 Series	COPE
	 PPE
1700 Modified Polyphenylene Ether 1800 Acrylic	PMMA
1800 A Polycarbonate/Acrylic Alloy	PC/PMMA
1900 Foam Concentrates	FCX
2000 Miscellaneous	
2100 Polyetherimide	PEI
2200 Polyetherithide 2200 Polyetheretherketone	PEEK
2200 A Polyetherketone	PEK
2300 Rigid Thermoplastic Polyurethane	RTPU
2400 See RTP 1700 Series	
2500 Polycarbonate/ABS Alloy	PC/ABS
2600 Unassigned	
2700 Styrenic Block Copolymer	SBC
2700 S Saturated Styrenic Block Copolymer Thermoplastic Elastomer	SEBS
2700 U Unsaturated Styrenic Block Copolymer Thermoplastic Elastome	SBS
2800 Value-Added Thermoplastic Polyolefin Elastomer	TEO
2800 B Thermoplastic Vulcanizate Elastomer	0
2800 D Thermoplastic Polyolefin Elastomer	TEO
2900 Polyether-Block-Amide Thermoplasic Elastomer	COPA
3000 Polymethylpentene	PMP
3100 Perfluoroalkoxy	PFA
3200 Ethylene Tetrafluoroethylene	ETFE
3300 Polyvinylidene Fluoride	PVDF
3400 Liquid Crystal Polymer	LCP
3500 Florinated Ethylene Propylene	FEP
3600 Discontinued	
3700 Cellulosics (Acetate, Butyrates, & Propionate)	CA, CAB, & CAP
3800 Polyaryletherketone	PAEK
3900 Polyetherketoneetherketoneketone	PEKEKK

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Series	Base Resin System	Abbreviation
4000	Polyphthalamide	PPA
4000 A	Hot Water Moldable Polyphthalamide	PPA
4100	Polyetherketoneketone	PEKK
4200	Thermoplastic Polyimide	TPI
4300	Polysulfone/Polycarbonate Alloy	PSU/PC
4400	High Temperature Nylon	HTN
4500	Discontinued	
4600	Syndiotactic Polystyrene	SPS
4700	Polytrimethylene Terephthalate	PTT
4800	Polyvinyl Chloride	PVC
6000	Specialty Thermoplastic Elastomer	TPE