Designation: D1600 – 14

Standard Terminology for Abbreviated Terms Relating to Plastics[1]

This standard is issued under the fixed designation D1600; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 The purpose of this terminology is to provide uniform contractions of terms relating to plastics. Abbreviated terminology has evolved through widespread common usage. This compilation has been prepared to avoid both the occurrence of more than one abbreviated term for a given plastics term and multiple meanings for abbreviated terms.

1.2 The scope of these abbreviated terms includes plastics terms pertaining to composition and relating to type or kind according to mode of preparation or principle distinguishing characteristics. Also included are abbreviated terms for terms relating to copolymers, blends and alloys of plastics, and additives such as plasticizers, fillers, etc.

NOTE 1—A code relating to the composition of rubbers is given in Practice D1418.

1.3 No attempt is made here to systematize formally a shorthand terminology for polymers. Terminology, including nomenclature, codes, symbols, and formula designations for use in scientific literature in the field of natural and synthetic polymers, are being studied and standardized by the International Union of Pure and Applied Chemistry.[2]

1.4 These abbreviated terms are by no means all-inclusive of plastics terminology. They represent, in general, those terms that have come into established use. Since it is recognized that abbreviated terms serve no useful purpose unless they are generally accepted and used, no attempt has been made to establish a rigorous code for devising standard abbreviated terms. This would result in awkward departures from established usage of existing and accepted abbreviated terms and lead to cumbersome combinations in the future, which would not be likely to receive widespread acceptance. The abbreviated terms now in use have grown naturally out of the need for convenient, readily comprehended shorthand for long chemical names. This process can be expected to continue along the natural lines of least resistance and will serve as a basis for further standardization as the need arises. A general guide for the preparation of abbreviated terms appears desirable, however, to facilitate more organized and uniform standardization in the future. An appendix is attached, which suggests a uniform way to prepare abbreviated terms.

1.5 Note that the uppercase letter F should be used to designate phosphate and that other elements may also be designated F.

1.6 An abbreviated term (FR) and code numbers are provided to identify classes of materials used as flame retardants added to plastics. The system is provided for use in situations where marking of plastics products is desired.

NOTE 2—Many of the abbreviated terms, codes, numbers, and symbols in ISO 1043 parts 1 through 4 and in ISO/DIS 1043-4 are the same as the corresponding item in ASTM D1600. D1600 includes a number of abbreviated terms that are not in ISO 1043.

2. Referenced Documents

2.1 *ASTM Standards:*[3]

D883 Terminology Relating to Plastics

D1418 Practice for Rubber and Rubber Latices—Nomenclature

D1972 Practice for Generic Marking of Plastic Products (Withdrawn 2014)[4]

2.2 *ISO Standards:*[5]

ISO 472:1988 Plastics—Vocabulary

ISO 1043-1:2001 Plastics—Symbols—Part 1: Basic Polymers and Their Special Characteristics

ISO 1043-2:2000 Plastics—Symbols—Part 2: Fillers and Reinforcing Materials

ISO 1043-3:1996 Plastics—Symbols—Part 3: Plasticizers

ISO 1043-4:1998 Plastics—Symbols and Abbreviated Terms—Part 4: Flame Retardants

[1] This terminology is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.92 on Terminology.

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[2] "Report on Nomenclature in the Field of Macromolecules," *Journal of Polymer Science,* Vol VIII, 1952, pp. 257–277.

[3] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[4] The last approved version of this historical standard is referenced on www.astm.org.

[5] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

***A Summary of Changes section appears at the end of this standard**

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of general terms, see Terminology D883.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *flame retardant, FR, n*—a substance that markedly retards the propagation of a flame. (See ISO 472.)

3.2.1.1 *Discussion*—Flame retardants may be incorporated in plastics as additives (external flame retardant) or as chemical groups in the base polymer by use of reactive intermediates in the polymerization process (internal flame retardant). The code numbers in this standard are restricted to external flame retardants.

4. Terms and Abbreviated Terms

4.1 *Plastics and Resins:*[6]

Term	Abbreviated Term
Acrylonitrile/butadiene plastics	AB
Acrylonitrile-butadiene-acrylate plastics	ABA
Acrylonitrile-butadiene-styrene plastics	ABS
Acrylonitrile-chlorinated polyethylene-styrene plastics	ACPES
Acrylonitrile-ethylene-styrene plastics	AES
Acrylonitrile-methyl acrylate-acrylonitrile-butadiene rubber	AMAB
Acrylonitrile-methyl methacrylate plastics	AMMA
Acrylonitrile-styrene-acrylate plastics	ASA
Acrylonitrile/ethylene-propylene-diene/styrene	AEPDMS
Aromatic polyester	ARP
Carboxymethyl cellulose	CMC
Casein	CS
Caseine-formaldehyde resin	CSF
Cellulose acetate	CA
Cellulose acetate-butyrate	CAB
Cellulose acetate propionate	CAP
Cellulose formaldehyde	CEF
Cellulose nitrate	CN
Cellulose plastics, general	CE
Cellulose propionate	CP
Cellulose triacetate	CTA
Chlorinated poly(vinyl chloride)	CPVC
Chlorinated polyethylene	CPE
Cresol-formaldehyde resin	CF
Epoxy, epoxide	EP
Ethyl cellulose	EC
Ethylene acrylate	EA
Ethylene-chlorotrifluoroethylene copolymer	E-CTFE
Ethylene-ethyl acrylate plastics	EEA
Ethylene-methacrylic acid plastics	EMA
Ethylene-propylene polymer	EPM
Ethylene-propylene-diene plastics	EPD
Ethylene-tetrafluoroethylene copolymer	ETFE
Ethylene-vinyl acetate plastics	EVA
Ethylene-vinyl alcohol copolymer	EVOH
Fluorocarbon perfluoromethoxy	MPA
Furan formaldehyde resin	FF
General purpose polystyrene	GPPS
High density polyethylene plastics	HDPE
High impact-resistant polystyrene	HIPS
Impact resistant polystyrene	IPS
Linear low density polyethylene plastics	LLDPE
Linear medium density polyethylene plastics	LMDPE
Liquid crystal polymer	LCP
Low density polyethylene plastics	LDPE
Medium density polyethylene plastics	MDPE
Melamine-formaldehyde resin	MF
Melamine/phenol-formaldehyde resin	MPF
Methacrylate-butadiene-styrene plastics	MBS
Methyl cellulose	MC
Methyl methacrylate-acrylonitrile-butadiene-styrene resin	MMABS
Nylon (see also polyamide)	PA
Perfluoro(alkoxy alkane)	PFA
Perfluoro(ethylene-propylene) copolymer	FEP
Perfluoromethoxy resin	MFA
Phenol-formaldehyde resin	PF
Phenol-furfural resin	PFF
Poly(acrylic acid)	PAA
Poly(allyl diglycol carbonate)	PADC
Poly(aryl ether ketone)	PAEK
Poly(butyl acrylate)	PBA
Poly(butylene adipate-co-succinate)	PBAS
Poly(butylene adipate-co-terephthalate)	PBAT
Poly(butylene succinate)	PBS
Poly(butylene terephthalate)	PBT
Poly(cyclohexylenedimethylene cyclohexandicarboxylate), glycoland acid comonomer	PCCE
Poly(cyclohexylenedimethylene terephthalate)	PCT

[6] To prevent any confusion with or misuse of the registered trademark, PET® Milk, the guidelines of 8.1 shall be followed.

Term	Abbreviated Term
Poly(cyclohexylenedimethylene terephthalate), acid comonomer	PCTA
Poly(cyclohexylenedimethylene terephthalate), glycol	PCTG
Poly(diallyl phthalate)	PDAP
Poly(ester urethane)	PAUR
Poly(ether block amide)	PEBA
Poly(ether sulfone)	PES
Poly(ether urethane)	PEUR
Poly(ethylene furanoate)	PEF
Poly(ethylene oxide)	PEOX
Poly(ethylene terephthalate)	PET[6]
Poly(ethylene terephthalate) acid comonomer	PETA
Poly(ethylene terephthalate) glycol comonomer	PETG
Poly(lactic acid)	PLA
Poly(methyl methacrylate)	PMMA
Poly(methyl methacrylimide)	PMMI
Poly(methyl-α-chloroacrylate)	PMCA
Poly(phenyl sulfone)	PPSU
Poly(phenylene ether) (or Poly(phenylene oxide), a deprecated term)	PPE
Poly(phenylene sulfide)	PPS
Poly(phenylene sulfone)	PPSU
Poly(propylene oxide)	PPOX
Poly(vinyl acetate)	PVAC
Poly(vinyl alcohol)	PVOH
Poly(vinyl butyral)	PVB
Poly(vinyl carbazole)	PVK
Poly(vinyl chloride)	PVC
Poly(vinyl chloride-acetate)	PVCA
Poly(vinyl fluoride)	PVF
Poly(vinyl formal)	PVFM
Poly(vinyl pyrrolidone)	PVP
Poly(vinylidene chloride)	PVDC
Poly(vinylidene fluoride)	PVDF
Poly(ε-caprolactone)	PCL
Poly-4-methylpentene-1	PMP
Poly-α-methylstyrene	PMS
Poly-p-oxybenzoate	POB
Polyacrylonitrile	PAN
Polyamide (nylon)	PA
Polyamide 10	PA10
Polyamide 1010	PA1010
Polyamide 11	PA11
Polyamide 12	PA12
Polyamide 1212	PA1212
Polyamide 46	PA46
Polyamide 410	PA410
Polyamide 6	PA6
Polyamide 610	PA610
Polyamide 612	PA612
Polyamide 66	PA66
Polyamide 69	PA69
Polyamide 6I	PA6I
Polyamide 6T	PA6T
Polyamide-imide	PAI
Polyarylate	PAR
Polyaryl amide	PARA
Polyarylether	PAE
Polyarylsulfone	PAS
Polybutadiene-acrylonitrile	PBAN
Polybutadiene-styrene	PBS
Polybutene-1	PB
Polycarbonate	PC
Polychlorotrifluoroethylene	PCTFE
Polyester alkyd (or polyacrylate)	PAK
Polyetheretherketone	PEEK
Polyetheretherketoneketone	PEEKK
Polyetherketonetherketoneketone	PEKEKK
Polyetherketoneketone	PEKK
Polyetherimide	PEI
Polyetherketone	PEK
Polyethylene	PE
Poly(ethylene naphthalate)	PEN
Polyhydroxy butyrate	PHB
Polyimide	PI
Polyimidesulfone	PISU
Polyisobutylene	PIB
Polyisocyanurate	PIR
Polyketone	PK
Polymethacrylimide	PMI
Polyoxymethylene, polyacetal	POM
Polyphenylene	PPH
Polyphthalamide	PPA
Polypropylene	PP
Homopolymer polypropylene	HPP
Random copolymer polypropylene	RPP
Impact copolymer polypropylene	CPP
Polystyrene	PS
Polysulfone	PSU
Polytetrafluoroethylene	PTFE
Polyurethane	PUR
Saturated polyester plastic	SP
Silicone plastics	SI
Styrene-α-methylstyrene plastic	SMS
Styrene-acrylonitrile plastic	SAN
Styrene-butadiene plastic	SB
Styrene-butadiene-styrene block copolymer	SBS
Styrene-ethylene/butylene-styrene block copolymer	SEBS
Styrene-ethylene/propylene-styrene block copolymer	SEPS
Styrene-isoprene-styrene block copolymer	SIS
Styrene-maleic anhydride plastics	S/MA
Styrene-rubber plastics	SRP
Thermoplastic elastomer	TPE
Thermoplastic elastomer, ether-ester	TEEE
Thermoplastic elastomer, fully crosslinked elastomer alloy	FCEA
Thermoplastic elastomer, highly crosslinked thermoplastic vulcanizate	HCTPV
Thermoplastic elastomer, olefinic	TEO
Thermoplastic elastomer, polyether block amide	PEBA
Thermoplastic elastomer, styrenic	TES
Thermoplastic elastomer styrenic, saturated	TESS
Thermoplastic elastomer styrenic, unsaturated	TESU
Thermoplastic polyester	TPES
Thermoplastic polyester:	
Copolyester [poly(aryl terephthalate)]	ARP
Polyarylate [poly(aryl terephthalate)]—liquid crystal polymer	PAT
Thermoplastic polyurethane	TPU
Thermoplastic polyurethane, reinforced	RTPU
Thermoplastic starch	TPS
Thermoset polyurethane	TSPU
Ultra-high molecular weight polyethylene	UHMWPE
Unsaturated polyester	UP
Urea-formaldehyde resin	UF
Vinyl chloride-ethylene resin	VCE
Vinyl chloride-ethylene-methyl acrylate resin	VCEMA
Vinyl chloride-ethylene-vinyl acetate resin	VCEVAC
Vinyl chloride-methyl acrylate resin	VCMA
Vinyl chloride-methyl methacrylate resin	VCMMA
Vinyl chloride-octyl acrylate resin	VCOA
Vinyl chloride-vinyl acetate resin	VCVAC
Vinyl chloride-vinylidene chloride resin	VCVDC
Vinylidene fluoride	VDF

4.2 *Blends and Alloys of Plastics:*

Term	Abbreviated Term
Acrylonitrile-butadiene-acrylate plastics + poly(methyl methacrylate)	ABA+PMMA
Acrylonitrile-butadiene-acrylate plastics+poly(vinyl chloride)	ABA+PVC
Acrylonitrile-butadiene-acrylate plastics+polycarbonate	ABA+PC
Acrylonitrile-butadiene-styrene plastics+poly(vinyl chloride)	ABS+PVC
Acrylonitrile-butadiene-styrene plastics+polyphenylene sulfone	ABS+PPSU

Term	Abbreviated Term
Acrylonitrile-butadiene-styrene plastics+polytetrafluoroethylene	ABS+PTFE
Acrylonitrile-butadiene-styrene plastics+styrene maleic anhydride	ABS+SMA
Acrylonitrile-butadiene-styrene plastics+thermoplastic polyurethane	ABS+TPU
Acrylonitrile-butadiene-styrene plastics+polyamide	ABS+PA
Acrylonitrile-butadiene-styrene plastics+polycarbonate	ABS+PC
Acrylonitrile-styrene-acrylate plastics+poly(methyl methacrylate)	ASA+PMMA
Acrylonitrile-styrene-acrylate plastics+polycarbonate	ASA+PC
Fully crosslinked elastomeric alloy	FCEA
Poly(butylene terephthalate)+poly(ethylene terephthalate)	PBT+PET[6]
	Abbreviated
Poly(butylene terephthalate)+rubber	PBT+RBR
Poly(ethylene naphthalate)	PEN
Poly(ethylene terephthalate)+poly(methyl methacrylate)	PET[6] +PMMA
Poly(ethylene terephthalate)+poly(phenylene sulfone)	PET[6] +PPSU
Poly(ethylene terephthalate)+rubber	PET[6] +RBR
Poly(phenylene ether)+impact resistant polystyrene	PPE+IPS
Poly(phenylene sulfide)+polytetrafluoroethylene	PPS+PTFE
Poly(vinyl chloride)+chlorinated polyethylene	PVC+CPE
Poly(vinyl chloride)+nitrile-butadiene rubber	PVC+NBR
Poly(vinyl chloride)+poly(methyl methacrylate)	PVC+PMMA
Poly(vinyl chloride) plastics+polyurethane	PVC+PUR
Polyamide (amorphous) blend	PA +
Polyamide plastics+ethylene-methacrylic acid (ionomer)	PA+EMA
Polyamide+poly(phenylene ether)	PA+PPE
Polyamide+polyethylene	PA+PE
Polyamide+rubber	PA+RBR
Polyamide+styrene-acrylonitrile plastics	PA+SAN
Polycarbonate+poly(butylene terephthalate)	PC+PBT
Polycarbonate+poly(ethylene terephthalate)	PC+PET[6]
Polycarbonate+polyethylene	PC+PE
Polycarbonate+styrene-maleic anhydride	PC+SMA
Polycarbonate+thermoplastic polyurethane	PC+TPU
Polyoxymethylene+polytetrafluoroethylene	POM+PTFE
Polyoxymethylene+rubber	POM+RBR
Polyurethane+polyisocyanate	PUR+PIR
Styrene-maleic anhydride plastics+impact resistant polystyrene	SMA+IPS
Thermoplastic elastomer-chlorinated ethylene alloy	TECEA

NOTE 3—In general, blends and alloys of plastics shall be identified as Abbreviation 1+ Abbreviation 2 + ….. Abbreviation n, where abbreviation n represents the abbreviation for component n, and the percentage, by weight, of component 1> the percentage, by weight of component 2> the percentage, by weight of component n.

4.3 *Plastic and Resin Additives:*

Term	Abbreviated Term
Alkylsulfonic acid ester	ASE
Benzyl butyl phthalate	BBP
Benzyl octyl adipate (benzyl 2-ethylhexyl adipate)	BOA
Benzyl octyl phthalate (benzyl 2-ethylhexyl phthalate)	BOP
Di-n-octyl phthalate	DNOP
Dibutylphthalate	DBP
Dibutyl sebacate	DBS
Dicapryl phthalate	DCP
Dicylohexyl phthalate	DCHP
Didecyl phthalate	DDP
Diethyl phthalate	DEP
Diheptyl phthalate	DHP
Dihexyl phthalate	DHXP
Diisobutyl phthalate	DIBP
Diisodecyl adipate	DIDA
Diisodecyl phthalate	DIDP
Diisoheptyl phthalate	DIHP
Diisohexyl phthalate	DIHXP
Diisononyl adipate	DINA
Diisononyl phthalate	DINP
Diisooctyl adipate	DIOA
Diisooctyl phthalate	DIOP
Diisopentyl phthalate	DIPP
Diisotridecyl phthalate	DITDP
Dimethyl phthalate	DMP
Dinonyl phthalate	DNP
Dioctyl adipate	DOA
Dioctyl azelate	DOZ
Dioctyl isophthalate (di-2-ethylhexyl isophthalate)	DOIP
Dioctyl phthalate	DOP
Dioctyl sebacate	DOS
Dioctyl terephthalate (di-2-ethylhexyl terephthalate)	DOTP
Diphenyl octyl phosphate	DPOF
Diphenyl cresyl phosphate	DPCF
Diphenyl 2-ethylhexyl phosphate	DPOF
Diundecyl phthalate	DUP
Epoxidized linseed oil	ELO
Epoxidized soya bean oil	ESO
Heptyl nonyl undecyl adipate	HNUA
Heptyl nonyl undecyl phthalate	HNUP
Hexyl octyl decyl adipate	HXODA
Hexyl octyl decyl phthalate	HXODP
n-Octyl decyl trimellitate	ODTM
Nonyl undecyl adipate	NUA
Nonyl undecyl phthalate	NUP
Octyl decyl adipate	ODA
Octyl decyl phthalate	ODP
Tetraoctyl pyromellitate (tetra-2-ethylhexyl pyromellitate)	TOPM
Trichloroethyl phosphate	TCEF
Tricresyl phosphate (or tritolyl phosphate)	TCF
Triheptyl trimellitate	THTM
Triisooctyl trimellitate	TIOTM
Trioctyl phosphate	TOF
Trioctyl trimellitate (tri-2-ethylhexyl trimellitate)	TOTM
Triphenyl phosphate	TPP
Trixylyl phosphate	TXF

4.4 *Monomers:*

Term	Abbreviated Term
Adipic acid	AA
Allyl diglycol carbonate	ADC
Butanediol	BD
Chlorotrifluoroethylene	CTFE
Diallyl chlorendate (diallyl ester of 1,4,5,6,7,7-hexa chlorobicyclo-(2,2,1)-5-heptene-2,3 -dicarboxylic acid)	DAC
Diallyl fumarate	DAF
Diallyl isophthalate	DAIP
Diallyl maleate	DAM
Diallyl phthalate (diallyl orthophthalate)	DAP
Ethylene	ET
Ethylene Glycol	EG
Lactic acid	LA
Methyl methacrylate	MMA
Propylene	PR
Succinic acid	SA
p-Terephthalic acid	PTA

Term	Abbreviated Term
Tetrafluoroethylene	TFE
Triallyl cyanurate	TAC

4.5 *Miscellaneous Plastics Terms:*

Term	Abbreviated Term
General purpose	GP
Single stage	SS

NOTE 4—When listing one or more components, the order preferably should be in decreasing amount by mass. There are situations, however, where long standing usage indicates that this recommendation should not be followed. An example is ETFE.

5. Full List by Term and Abbreviated Term

Term	Abbreviated Term
Acrylonitrile-butadiene-acrylate plastics+poly(methyl methacrylate)	ABA+PMMA
Acrylonitrile-butadiene-acrylate plastics+poly(vinyl chloride)	ABA+PVC
Acrylonitrile-butadiene-acrylate plastics+polycarbonate	ABA+PC
Acrylonitrile-butadiene-acrylate plastics	ABA
Acrylonitrile-butadiene-styrene plastics+poly(vinyl chloride)	ABS+PVC
Acrylonitrile-butadiene-styrene plastics+polyphenylene sulfone	ABS+PPSU
Acrylonitrile-butadiene-styrene plastics+polytetrafluoro-ethylene	ABS+PTFE
Acrylonitrile-butadiene-styrene plastics+styrene maleic anhydride	ABS+SMA
Acrylonitrile-butadiene-styrene plastics+thermoplastic polyurethane	ABS+TPU
Acrylonitrile/butadiene plastics	AB
Acrylonitrile-butadiene-styrene plastics+polyamide	ABS+PA
Acrylonitrile-butadiene-styrene plastics+polycarbonate	ABS+PC
Acrylonitrile-chlorinated polyethylene-styrene plastics	ACPES
Acrylonitrile-ethylene-styrene plastics	AES
Acrylonitrile-methyl acrylate-acrylonitrile-butadiene rubber	AMAB
Acrylonitrile-methyl methacrylate plastics	AMMA
Acrylonitrile-styrene-acrylate plastics+poly(methyl methacrylate)	ASA+PMMA
Acrylonitrile-styrene-acrylate plastics+poly(vinyl chloride)	ASA+PVC
Acrylonitrile-styrene-acrylate plastics	ASA
Acrylonitrile-styrene-acrylate plastics+polycarbonate	ASA+PC
Acrylonitrile/ethylene-propylene-diene/styrene plastics	AEPDMS
Adipic Acid	AA
Alkylsulfonic acid ester	ASE
Allyl diglycol carbonate	ADC
Aromatic polyester	ARP
Benzyl butyl phthalate	BBP
Benzyl octyl adipate (benzyl 2-ethylhexyl adipate)	BOA
Benzyl octyl phthalate (benzyl 2-ethylhexyl phthalate)	BOP
Butanediol	BD
Carboxymethyl cellulose	CMC
Casein	CS
Caseine-formaldehyde resin	CSF
Cellulose acetate	CA
Cellulose acetate-butyrate	CAB
Cellulose acetate-propionate	CAP
Cellulose formaldehyde	CEF
Cellulose nitrate	CN
Cellulose plastics, general	CE
Cellulose propionate	CP
Cellulose triacetate	CTA
Chlorinated poly(vinyl chloride)	CPVC
Chlorinated polyethylene	CPE
Chlorotrifluoroethylene	CTFE
Cresol-formaldehyde resin	CF
Di-n-octyl phthalate	DNOP
Diallyl chlorendate (diallyl ester of 1,4,5,6,7,7-hexachloro-bicyclo-(2,2,1)-5-heptene-2,3-dicarboxylic acid)	DAC
Diallyl fumarate	DAF
Diallyl isophthalate	DAIP
Diallyl maleate	DAM
Diallyl phthalate (diallyl orthophthalate)	DAP
Dibutyl phthalate	DBP
Dibutyl sebacate	DBS
Dicapryl phthalate	DCP
Dicyclohexyl phthalate	DCHP
Didecyl phthalate	DDP
Diethyl phthalate	DEP
Diheptyl phthalate	DHP
Dihexyl phthalate	DHXP
Diisobutyl phthalate	DIBP
Diisodecyl adipate	DIDA
Diisodecyl phthalate	DIDP
Diisoheptyl phthalate	DIHP
Diisohexyl phthalate	DIHXP
Diisononyl adipate	DINA
Diisononyl phthalate	DINP
Diisooctyl adipate	DIOA
Diisooctyl phthalate	DIOP
Diisopentyl phthalate	DIPP
Diisotridecyl phthalate	DITDP
Dimethyl phthalate	DMP
Dinonyl phthalate	DNP
Dioctyl adipate	DOA
Dioctyl azelate	DOZ
Dioctyl isophthalate (di-2-ethylhexyl isophthalate)	DOIP
Dioctyl phthalate	DOP
Dioctyl sebacate	DOS
Dioctyl terephthalate (di-2-ethylhexyl terephthalate)	DOTP
Diphenyl 2-ethylhexyl phosphate	DPOF
Diphenyl cresyl phosphate	DPCF
Diphenyl octyl phosphate	DPOF
Diundecyl phthalate	DUP
Epoxidized linseed oil	ELO
Epoxidized soya bean oil	ESO
Epoxy, epoxide	EP
Ethyl cellulose	EC
Ethylene	ET
Ethylene acrylate	EA
Ethylene-chlorotrifluoroethylene copolymer	E-CTFE
Ethylene-ethyl acrylate plastics	EEA
Ethylene Glycol	EG
Ethylene-methacrylic acid plastics	EMA
Ethylene-propylene polymer	EPM
Ethylene-propylene-diene plastics	EPD
Ethylene-tetrafluoroethylene copolymer	ETFE
Ethylene-vinyl acetate plastics	EVA
Ethlene-vinyl alcohol copolymer	EVOH
Fluorocarbon perfluoromethoxy	MPA
Fully crosslinked elastomeric alloy	FCEA
Furan-formaldehyde resin	FF
General purpose	GP
General purpose polystyrene	GPPS
Heptyl nonyl undecyl adipate	HNUA
Heptyl nonyl undecyl phthalate	HNUP
Hexyl octyl decyl adipate	HXODA
Hexyl octyl decyl phthalate	HXODP
High density polyethylene plastics	HDPE
High impact-resistant polystyrene	HIPS
Homopolymer polypropylene	HPP
Impact copolymer polypropylene	CPP
Impact resistant polystyrene	IPS
Lactic acid	LA

Term	Abbreviated Term
Linear low density polyethylene plastics	LLDPE
Linear medium density polyethylene plastics	LMDPE
Liquid crystal polymer	LCP
Low density polyethylene plastics	LDPE
Medium density polyethylene plastics	MDPE
Melamine-formaldehyde resin	MF
Melamine/phenol-formaldehyde resin	MPF
Methacrylate-butadiene-styrene plastics	MBS
Methyl cellulose	MC
Methyl methacrylate	MMA
Methyl methacrylate-acrylonitrile-butadiene-styrene resin	MMABS
n-Octyl decyl trimellitate	ODTM
Nonyl undecyl adipate	NUA
Nonyl undecyl phthalate	NUP
Nylon (See also *polyamide*)	PA
Octyl decyl adipate	ODA
Octyl decyl phthalate	ODP
Perfluoro(alkoxy alkane)	PFA
Perfluoro(ethylene-propylene) copolymer	FEP
Perfluoromethoxy resin	MFA
Phenol-formaldehyde resin	PF
Phenol-furfural resin	PFF
Poly(acrylic acid)	PAA
Poly(allyl diglycol carbonate)	PADC
Poly(aryl ether ketone)	PAEK
Poly(butyl acrylate)	PBA
Poly(butylene terephthalate)	PBT
Poly(butylene terephthalate)+poly(ethylene terephthalate)	PBT+PET[6]
Poly(butylene terephthalate)+poly(phenylene ether)	PBT+PPE
Poly(butylene terephthalate)+rubber	PBT+RBR
Poly(cyclohexylenedimethylene cyclohexandicarboxylate), glycol and acid comonomer	PCCE
Poly(cyclohexylenedimethylene terephthalate)	PCT
Poly(cyclohexylenedimethylene terephthalate), acid comonomer	PCTA
Poly(cyclohexylenedimethylene terephthalate), glycol	PCTG
Poly(diallyl phthalate)	PDAP
Poly(ester urethane)	PAUR
Poly(ether block amide)	PEBA
Poly(ether sulfone)	PES
Poly(ether urethane)	PEUR
Poly(ethylene furanoate)	PEF
Poly(ethylene naphthalate)	PEN
Poly(ethylene oxide)	PEOX
Poly(ethylene terephthalate)	PET[6]
Poly(ethylene terephthalate)+poly(methyl methacrylate)	PET[6] +PMMA
Poly(ethylene terephthalate)+poly(phenylene sulfone)	PET[6] +PPSU PET[6] +RBR
Poly(ethylene terephthalate) acid	PETA
Poly(ethylene terephthalate), glycol comonomer	PETG
Poly(lactic acid)	PLA
Poly(methyl methacrylate)	PMMA
Poly(methyl methacrylimide)	PMMI
Poly(methyl-α-chloroacrylate)	PMCA
Poly(phenyl sulfone)	PPSU
Poly(phenylene ether) (or poly(phenylene oxide), a deprecated term)	PPE
Poly(phenylene ether)+impact resistant polystyrene	PPE+IPS
Poly(phenylene sulfide)	PPS
Poly(phenylene sulfide)+polytetrafluoroethylene	PPS+PTFE
Poly(phenylene sulfone)	PPSU
Poly(propylene oxide)	PPOX
Poly(vinyl acetate)	PVAC
Poly(vinyl alcohol)	PVOH
Poly(vinyl butyral)	PVB
Poly(vinyl carbazole)	PVK
Poly(vinyl chloride)	PVC
Poly(vinyl chloride)+chlorinated polyethylene	PVC+CPE
Poly(vinyl chloride)+nitrile-butadiene rubber	PVC+NBR
Poly(vinyl chloride)+poly(methyl methacrylate)	PVC+PMMA
Poly(vinyl chloride) plastics+polyurethane	PVC+PUR
Poly(vinyl chloride-acetate)	PVCA
Poly(vinyl fluoride)	PVF
Poly(vinyl formal)	PVFM
Poly(vinyl pyrrolidone)	PVP
Poly(vinylidene chloride)	PVDC
Poly(vinylidene fluoride)	PVDF
Poly(ε-caprolactone)	PCL
Poly-4-methyl pentene-1	PMP
Poly-α-methylstyrene	PMS
Poly-p-oxybenzoate	POB
Polyacrylonitrile	PAN
Polyamide (amorphous) blend	PA +
Polyamide (nylon)	PA
Polyamide 10	PA10
Polyamide 1010	PA1010
Polyamide 11	PA11
Polyamide 12	PA12
Polyamide 1212	PA1212
Polyamide 46	PA46
Polyamide 6	PA6
Polyamide 610	PA610
Polyamide 612	PA612
Polyamide 66	PA66
Polyamide 69	PA69
Polyamide 6I	PA6I
Polyamide 6T	PA6T
Polyamide plastics+ethylene-methacrylic acid (ionomer)	PA+EMA
Polyamide+poly(phenylene ether)	PA+PPE
Polyamide+polyethylene	PA+PE
Polyamide+rubber	PA+RBR
Polyamide+styrene-acrylonitrile plastics	PA+SAN
Polyamide-imide	PAI
Polyarylate	PAR
Polyaryl amide	PARA
Polyarylether	PAE
Polyarylsulfone	PASU
Polybutadiene-acrylonitrile	PBAN
Polybutadiene-styrene	PBS
Polybutene-1	PB
Polycarbonate	PC
Polycarbonate+poly(butylene terephthalate)	PC+PBT
Polycarbonate+poly(ethylene terephthalate)	PC+PC+PET[6]
Polycarbonate+polyethylene	PC+PE
Polycarbonate+styrene-maleic anhydride	PC+SMA
Polycarbonate+thermoplastic polyurethane	PC+TPU
Polychlorotrifluoroethylene	PCTFE
Polyester alkyd (or polyacrylate)	PAK
Polyester, thermoplastic; polyarylate [poly(aryl terephthalate)]—liquid crystal polymer	PAT
Polyetheretherketone	PEEK
Polyetheretherketoneketone	PEEKK
Polyetherketonetherketoneketone	PEKEKK
Polyetherketoneketone	PEKK
Polyetherizmide	PEI
Polyetherketone	PEK
Polyethylene	PE
Polyhydroxy butyrate	PHB
Polyhydroxy butyrate-polyhydroxy valerate	PHBV
Polyimide	PI
Polyimidesulfone	PISU
Polyisobutylene	PIB
Polyisocyanurate	PIR
Polyketone	PK
Polymethacrylimide	PMI
Polyoxymethylene+polytetrafluoroethylene	POM+PTFE
Polyoxymethylene+rubber	POM+RBR
Polyoxymethylene, polyacetal	POM
Polyphenylene	PPH
Polyphthalamide	PPA
Polypropylene	PP
Homopolymer polypropylene	HPP

Term	Abbreviated Term
Random copolymer polypropylene	RPP
Impact copolymer polypropylene	CPP
Polystyrene	PS
Polysulfone	PSU
Polytetrafluoroethylene	PTFE
Polyurethane	PUR
Polyurethane+polyisocyanate	PUR+PIR
Propylene	PR
Random copolymer polypropylene	RPP
Saturated polyester plastic	SP
See TCF	TTP
Silicone plastics	SI
Single stage	SS
Styrene-α-methylstyrene plastic	SMS
Styrene-acrylonitrile plastic	SAN
Styrene-butadiene plastics	SB
Styrene-butadiene-styrene block copolymer	SBS
Styrene-ethylene/butylene-styrene block copolymer	SEBS
Styrene-ethylene/propylene-styrene block copolymer	SEPS
Styrene-isoprene-styrene block copolymer	SIS
Styrene-maleic anhydride plastics+impact resistant polystyrene	SMA+IPS
Styrene-maleic anhydride plastics	S/MA
Styrene-rubber plastics	SRP
Succunic acid	SA
p-Terephthalic acid	PTA
Tetrafluoroethylene	TFE
Tetraoctyl pyromellitate (tetra-2-ethylhexyl pyromellitate)	TOPM
Thermoplastic elastomer	TPE
Thermoplastic elastomer, ether-ester	TEEE
Thermoplastic elastomer, fully crosslinked elastomer alloy	FCEA
Thermoplastic elastomer, highly crosslinked thermoplastic vulcanizate	HCTPV
Thermoplastic elastomer, olefinic	TEO
Thermoplastic elastomer, polyether block amide	PEBA
Thermoplastic elastomer, styrenic	TES
Thermoplastic elastomer styrenic, saturated	TESS
Thermoplastic elastomer styrenic, unsaturated	TESU
Thermoplastic elastomer-chlorinated ethylene alloy	TECEA
Thermoplastic polyester	TPES
Thermoplastic polyester:	
Copolyester [poly(aryl terephthalate)]	ARP
Polyarylate [poly(aryl terephthalate)]—liquid crystal polymer	PAT
Thermoplastic polyurethane	TPU
Thermoplastic polyurethane, reinforced	RTPU
Thermoplastic starch	TPS
Thermoset polyurethane	TSPU
Triallyl cyanurate	TAC
Trichlorethyl phosphate	TCEF
Tricresyl phosphate (or tritolyl phosphate)	TCF
Triheptyl trimellitate	THTM
Triisooctyl trimellitate	TIOTM
Trioctyl phosphate	TOF
Trioctyl trimellitate (tri-2-ethylhexyl trimellitate)	TOTM
Triphenyl phosphate	TPP
Trixylyl phosphate	TXF
Ultra-high molecular weight polyethylene	UHMWPE
Unsaturated polyester	UP
Urea-formaldehyde resin	UF
Vinyl chloride-ethylene resin	VCE
Vinyl chloride-ethylene-methyl acrylate resin	VCEMA
Vinyl chloride-ethylene-vinyl acetate resin	VCEVAC
Vinyl chloride-methyl acrylate resin	VCMA
Vinyl chloride-methyl methacrylate resin	VCMMA
Vinyl chloride-octyl acrylate resin	VCOA
Vinyl chloride-vinyl acetate resin	VCVAC
Vinyl chloride-vinylidene chloride resin	VCVDC
Vinylidene fluoride	VDF

6. Full List by Abbreviated Term

Abbreviated Term	Term
AB	Acrylonitrile/butadiene plastics
ABA	Acrylonitrile-butadiene-acrylate plastics
ABA+PC	Acrylonitrile-butadiene-acrylate+polycarbonate
ABA+PMMA	Acrylonitrile-butadiene-acrylate+poly(methyl methacrylate)
ABA+PVC	Acrylonitrile-butadiene-acrylate+poly(vinyl chloride)
ABS	Acrylonitrile-butadiene-styrene plastics
ABS+PA	Acrylonitrile-butadiene-styrene plastics+polyamide
ABS+PC	Acrylonitrile-butadiene-styrene plastics+polycarbonate
ABS+PPSU	Acrylonitrile-butadiene-styrene+polyphenylene sulfone
ABS+PTFE	Acrylonitrile-butadiene-styrene+polytetrafluoroethylene
ABS+PVC	Acrylonitrile-butadiene-styrene+poly(vinyl chloride)
ABS+SMA	Acrylonitrile-butadiene-styrene+styrene maleic anhydride
ABS+TPU	Acrylonitrile-butadiene-styrene+thermoplastic polyurethane
ACPES	Acrylonitrile-chlorinated polyethylene-styrene plastics
ADC	Allyl diglycol carbonate
AEPDMS	Acrylonitrile/ethylene-propylene-diene/styrene plastics
AES	Acrylonitrile-ethylene-styrene plastics
AMMA	Acrylonitrile-methyl methacrylate plastics
ARP	Aromatic polyester
ARP	Thermoplastic polyester, (polyaryl terephthalate)
ASA	Acrylonitrile-styrene-acrylate plastics
ASA+PC	Acrylonitrile-styrene-acrylate plastics+polycarbonate
ASA+PMMA	Acrylonitrile-styrene-acrylate+poly(methyl methacrylate)
ASA+PVC	Acrylonitrile-styrene-acrylate+poly(vinyl chloride)
ASE	Alkylsulfonic acid ester
BBP	Benzyl butyl phthalate
BD	Butanediol
BOA	Benzyl octyl adipate (benzyl 2-ethylhexyl adipate)
BOP	Benzyl octyl phthalate (benzyl 2-ethylhexyl phthalate)
CA	Cellulose acetate
CAB	Cellulose acetate-butyrate
CAP	Cellulose acetate-propionate
CE	Cellulose plastics, general
CEF	Cellulose formaldehyde
CF	Cresol-formaldehyde resin
CMC	Carboxymethyl cellulose
CN	Cellulose nitrate
CP	Cellulose propionate
CPE	Chlorinated polyethylene
CPP	Impact copolymer polypropylene
CPVC	Chlorinated poly(vinyl chloride)
CS	Casein
CSF	Caseine-formaldehyde resin
CTA	Cellulose triacetate
CTFE	Chlorotrifluoroethylene
DAC	Diallyl chlorendate (diallyl ester of 1,4,5,6,7,7-hexachlorobicyclo- (2,2,1)-5-heptene-2,3-dicarboxylic acid)
DAF	Diallyl fumarate
DAIP	Diallyl isophthalate
DAM	Diallyl maleate
DAP	Diallyl phthalate (diallyl orthophthalate)
DBP	Dibutyl phthalate
DBS	Dibutyl sebacate
DCHP	Dicyclohexyl phthalate
DCP	Dicapryl phthalate
DDP	Didecyl phthalate
DEP	Diethyl phthalate
DHP	Diheptyl phthalate
DHXP	Dihexyl phthalate
DIBP	Diisobutyl phthalate
DIDA	Diisodecyl adipate
DIDP	Diisodecyl phthalate
DIHP	Diisoheptyl phthalate
DIHXP	Diisohexyl phthalate
DINA	Diisononyl adipate

Abbreviated Term	Term
DINP	Diisononyl phthalate
DIOA	Diisooctyl adipate
DIOP	Diisooctyl phthalate
DIPP	Diisopentyl phthalate
DITDP	Diisotridecyl phthalate
DNOP	Di-n-octyl phthalate
DNP	Dinonyl phthalate
DOA	Dioctyl adipate (di-2-ethylhexyl adipate)
DOIP	Dioctyl isophthalate (di-2-ethylhexyl isophthalate)
DOP	Dioctyl phthalate (di-2-ethylhexyl phthalate)
DOS	Dioctyl sebacate (di-2-ethylhexyl sebacate)
DOTP	Dioctyl terephthalate (di-2-ethylhexyl terephthalate)
DOZ	Dioctyl azelate (di-2-ethylhexyl azelate)
DPCF	Diphenyl cresyl phosphate
DPOF	Diphenyl 2-ethylhexyl phosphate
DPOF	Diphenyl octyl phosphate
DUP	Diundecyl phthalate
EA	Ethylene acrylate
EC	Ethyl cellulose
E-CTFE	Ethylene-chlorotrifluoroethylene copolymer
EEA	Ethylene-ethyl acrylate plastics
ELO	Epoxidized linseed oil
EMA	Ethylene-methacrylic acid plastics
EP	Epoxy, epoxide
EPD	Ethylene-propylene-diene plastics
EPM	Ethylene-propylene polymer
ESO	Epoxidized soya bean oil
ETFE	Ethylene-tetrafluoroethylene copolymer
EVA	Ethylene-vinyl acetate plastics
EVOH	Ethylene-vinyl alcohol copolymer
FCEA	Thermoplastic elastomer, fully crosslinked elastomer alloy
FEP	Perfluoro(ethylene-propylene) copolymer
FF	Furan-formaldehyde resin
GP	General purpose
GPPS	General purpose polystyrene
HCTPV	Thermoplastic elastomer, highly crosslinked thermoplastic vulcanizate
HDPE	High-density polyethylene plastics
HIPS	High impact-resistant polystyrene
HNUA	Heptyl nonyl undecyl adipate
HNUP	Heptyl nonyl undecyl phthalate
HPP	Homopolymer polypropylene
HXODA	Hexyl octyl decyl adipate
HXODP	Hexyl octyl decyl phthalate
IPS	Impact-resistant polystyrene
LCP	Liquid crystal polymer
LDPE	Low density polyethylene plastics
LLDPE	Linear low density polyethylene plastics
LMDPE	Linear medium density polyethylene plastics
MBS	Methacrylate-butadiene-styrene plastics
MC	Methyl cellulose
MDPE	Medium density polyethylene plastics
MF	Melamine-formaldehyde resin
MFA	Perfluoromethoxy resin
MMA	Methyl methacrylate
MMABS	Methyl methacrylate-acrylonitrile-butadiene-styrene resin
MPA	Fluorocarbon perfluoromethoxy
MPF	Melamine/phenol-formaldehyde resin
NUA	Nonyl undecyl adipate
NUP	Nonyl undecyl phthalate
ODA	Octyl decyl adipate
ODP	Octyl decyl phthalate
ODTM	*n*-Octyl decyl trimellitate
PA	Polyamide (nylon)
PA10	Polyamide 10
PA1010	Polyamide 1010
PA	Nylon (see also polyamide)
PA11	Polyamide 11
PA12	Polyamide 12
PA1212	Polyamide 1212
PA46	Polyamide 46
PA410	Polyamide 410
PA6	Polyamide 6
PA610	Polyamide 610
PA612	Polyamide 612
PA66	Polyamide 66
PA69	Polyamide 69
PA6I	Polyamide 6I
PA6T	Polyamide 6T
PA+	Polyamide (amorphous) blend
PA+EMA	Polyamide plastics+ethylene-methacrylic acid (ionomer)
PA+PE	Polyamide+polyethylene
PA+PPE	Polyamide+poly(phenylene ether)
PA+RBR	Polyamide+rubber
PA+SAN	Polyamide+styrene-acrylonitrile
PAA	Poly(acrylic acid)
PADC	Poly(allyl diglycol carbonate)
PAEK	Poly(aryl ether ketone)
PAI	Polyamide-imide
PAK	Polyester alkyd (or polyacrylate)
PAN	Polyacrylonitrile
PAR	Polyarylate
PARA	Polyaryl amide
PASU	Polyarylsulfone
PAT	Polyester, thermoplastic; polyarylate [poly(aryl terephthalate)]
PAUR	Poly(ester urethane)
PB	Polybutene-1
PBA	Poly(butyl acrylate)
PBAS	Poly(butylene adipate-co-succinate)
PBAN	Polybutadiene-acrylonitrile
PBAT	Poly(butylene adipate-co-terephthalate)
PBS	Polybutadiene-styrene
PBS	Poly(butylene succinate)
PBT	Poly(butylene terephthalate)
PBT+PET[6]	Poly(butylene terephthalate)+poly(ethylene terephthalate)
PBT+PPE	Poly(butylene terephthalate)+poly(phenylene ether)
PBT+RBR	Poly(butylene terephthalate)+rubber
PC	Polycarbonate
PC+PBT	Polycarbonate+poly(butylene terephthalate)
PC+PE	Polycarbonate+polyethylene
PC+PET[6]	Polycarbonate+poly(ethylene terephthalate)
PC+SMA	Polycarbonate+styrene-maleic anhydride
PC+TPU	Polycarbonate+thermoplastic polyurethane
PCCE	Poly(cyclohexylenedimethylene cyclohexandicarboxylate), glycol and acid comonomer
PCL	Poly(ε-caprolactone)
PCT	Poly(cyclohexylenedimethylene terephthalate)
PCTA	Poly(cyclohexylenedimethylene terephthalate), cid comonomer
PCTFE	Polychlorotrifluoroethylene
PCTG	Poly(cyclohexylenedimethylene terephthalate), glycol
PDAP	Poly(diallyl phthalate)
PE	Polyethylene
PEBA	Thermoplastic elastomer, polyether block amide
PEBA	Poly(ether block amide)
PEEK	Polyetheretherketone
PEEKK	Polyetheretherketoneketone
PEF	Poly(ethylene furanoate)
PEI	Polyetherimide
PEK	Polyetherketone
PEKEKK	Polyetherketonetherketoneketone
PEKK	Polyetherketoneketone
PEN	Poly(ethylene naphthalate)
PEOX	Poly(ethylene oxide)
PES	Poly(ether sulfone)
PET[6]	Poly(ethylene terephthalate)
PETA	Poly(ethylene terephthalate) acid comonomer

Abbreviated Term	Term
PET[6] +PMMA	Poly(ethylene terephthalate)+poly(methyl methacrylate)
PET[6] +PPSU	Poly(ethylene terephthalate)+poly(phenylene sulfone)
PET[6] +RBR	Poly(ethylene terephthalate)+rubber
PETG	Poly(ethylene terephthalate) glycol comonomer
PEUR	Poly(ether urethane)
PF	Phenol-formaldehyde resin
PFA	Perfluoro(alkoxy alkane)
PFF	Phenol-furfural resin
PHB	Polyhydroxy butyrate
PHBV	Polyhydroxy butyrate-polyhydroxy valerate
PI	Polyimide
PIB	Polyisobutylene
PIR	Polyisocyanurate
PISU	Polyimidesulfone
PK	Polyketone
PLA	Poly(lactic acid)
PMCA	Poly(methyl-α-chloroacrylate)
PMI	Polymethacrylimide
PMMA	Poly(methyl methacrylate)
PMMI	Poly(methyl methacrylimide)
PMP	Poly-4-methylpentene-1
PMS	Poly-α-methylstyrene
POB	Poly-p-oxybenzoate
POM	Polyoxymethylene, polyacetal
POM+PTFE	Polyoxymethylene+polytetrafluoroethylene
POM+RBR	Polyoxymethylene+rubber
PP	Polypropylene
PPA	Polyphthalamide
PPE	Poly(phenylene ether) (or poly(phenylene oxide), a deprecated term)
PPE+IPS	Poly(phenylene ether)+impact-resistant polystyrene
PPH	Polyphenylene
PPOX	Poly(propylene oxide)
PPS	Poly(phenylene sulfide)
PPSU	Poly(phenyl sulfone)
PPS+PTFE	Poly(phenylene sulfide)+polytetrafluoroethylene
PS	Polystyrene
PSU	Polysulfone
PTA	p-Terephthalic acid
PTFE	Polytetrafluorethylene
PUR	Polyurethane
PUR+PIR	Polyurethane+polyisocyanate
PVAC	Poly(vinyl acetate)
PVOH	Poly(vinyl alcohol)
PVB	Poly(vinyl butyral)
PVC	Poly(vinyl chloride)
PVC+CPE	Poly(vinyl chloride)+chlorinated polyethylene
PVC+NBR	Poly(vinyl chloride)+nitrile-butadiene rubber
PVC+PMMA	Poly(vinyl chloride)+poly(methyl methacrylate)
PVC+PUR	Poly(vinyl chloride) plastics+polyurethane
PVCA	Poly(vinyl chloride-acetate)
PVDC	Poly(vinylidene chloride)
PVDF	Poly(vinylidene fluoride)
PVF	Poly(vinyl fluoride)
PVFM	Poly(vinyl formal)
PVK	Poly(vinyl carbazole)
PVP	Poly(vinyl pyrrolidone)
RPP	Random copolymer polypropylene
RTPU	Thermoplastic polyurethane, reinforced
S/MA	Styrene-maleic anhydride plastics
SAN	Styrene-acrylonitrile plastic
SB	Styrene-butadiene plastics
SBS	Styrene-butadiene-styrene block copolymer
SEBS	Styrene-ethylene/butylene-styrene block copolymer
SEPS	Styrene-ethylene/propylene-styrene block copolymer
SI	Silicone plastics
SIS	Styrene-isoprene-styrene block copolymer
SMA+IPS	Styrene-maleic anhydride+impact-resistant polystyrene
SMS	Styrene-α-methylstyrene plastic
SP	Saturated polyester plastic
SRP	Styrene-rubber plastics
SS	Single stage
TAC	Triallyl cyanurate
TCEF	Trichloroethyl phosphate
TCF	Tricresyl phosphate (or tritolyl phosphate)
TECEA	Thermoplastic elastomer-chlorinated ethylene alloy
TEEE	Thermoplastic elastomer, ether-ester
TEO	Thermoplastic elastomer, olefinic
TES	Thermoplastic elastomer, styrenic
TESS	Thermoplastic elastomer styrenic, saturated
TESU	Thermoplastic elastomer styrenic, unsaturated
TFE	Tetrafluoroethylene
THTM	Triheptyl trimellitate
TIOTM	Triisooctyl trimellitate
TOF	Trioctyl phosphate
TOPM	Tetraoctyl pyromellitate (tetra-2-ethylhexyl pyromellitate)
TOTM	Trioctyl trimellitate (tri-2-ethylhexyl trimellitate)
TPE	Thermoplastic elastomer
TPES	Thermoplastic polyester
TPP	Triphenyl phosphate
TPU	Thermoplastic polyurethane
TPS	Thermoplastic starch
TSPU	Thermoset polyurethane
TXF	Trixylyl phosphate
UF	Urea-formaldehyde resin
UHMWPE	Ultra-high molecular weight polyethylene
UP	Unsaturated polyester
VCE	Vinyl chloride-ethylene resin
VCEMA	Vinyl chloride-ethylene-methyl acrylate resin
VCEVAC	Vinyl chloride-ethylene-vinyl acetate resin
VCMA	Vinyl chloride-methyl acrylate resin
VCMMA	Vinyl chloride-methyl methacrylate resin
VCOA	Vinyl chloride-octyl acrylate resin
VCVAC	Vinyl chloride-vinyl acetate resin
VCVDC	Vinyl chloride-vinylidene chloride resin
VDF	Vinylidene fluoride

7. Code Numbers for Identifying Flame Retardant Compounds

7.1 The code numbers are grouped according to the chemical composition of the flame retardant.

7.1.1 *Halogenated Compounds:*

7.1.1.1 In compounds containing both aliphatic/alicyclic and aromatic groups, the group containing the halogen determines the code to be used.

Code	Compound
10	aliphatic/alicyclic chlorinated compounds
11	aliphatic/alicyclic chlorinated compounds in combination with antimony compounds
12	aromatic chlorinated compounds
13	aromatic chlorinated compounds in combination with antimony compounds
14	aliphatic/alicyclic brominated compounds
15	aliphatic/alicyclic brominated compounds in combination with antimony compounds
16	aromatic brominated compounds (excluding brominated diphenylether and biphenyls)
17	aromatic brominated compounds (excluding brominated diphenylether and biphenyls) in combination with antimony compounds
18	polybrominated diphenylether
19	polybrominated diphenylether in combination with antimony compounds
20	polybrominated biphenyls
21	polybrominated biphenyls in combination with antimony compounds
22 to 24	not allocated
25	aliphatic fluorinated compounds
26 to 29	not allocated

7.2 *Nitrogen Compounds:*

Code	Compound
30	nitrogen compounds (including but not limited to melamine, melamine cyanurate, urea)
31 to 39	not allocated

7.3 *Organic Phosphorus Compounds:*

Code	Compound
40	halogen free organic phosphorous compounds
41	chlorinated organic phosphorus compounds
42	brominated organic phosphorus compounds
43 to 49	not allocated

7.4 *Inorganic Phosphorus Compounds:*

Code	Compound
50	ammonium orthophosphates
51	ammonium polyphosphates
52	red phosphorus
53 to 59	not allocated

7.5 *Metallic Oxides, Hydroxides, and Salts:*

Code	Compound
60	aluminum hydroxide
61	magnesium hydroxide
62	antimony (III)-oxide
63	alkali antimonate
64	magnesium/calcium carbonate-hydrate
65 to 69	not allocated

7.6 *Boron and Zinc Compounds:*

Code	Compound
70	inorganic boron compounds (excluding zinc borate)
71	organic boron compounds
72	zinc borate
73	inorganic zinc compounds (excluding zinc borate)
74	not allocated

7.7 *Silica Compounds:*

Code	Compound
75	inorganic silica compounds
76	organic silica compounds
77 to 79	not allocated

7.8 *Miscellaneous Compounds:*

Code	Compound
80	graphite
81 to 89	not allocated
90 to 99	not allocated

8. Use of Abbreviated Terms

8.1 When abbreviated terms are used in publications or other written matter, their first occurrence in the text should be enclosed in parentheses and preceded by the written word or words being abbreviated. Subsequent references to such words in the article can then be made using the abbreviated term. For example, if one wishes to use PET[6] as the acronym for poly(ethylene terephthalate), wording such as the following would be acceptable: "Poly(ethylene terephthalate) (PET[6]) is a crystalline plastic. PET[6] offers many advantages in such articles as soft drink bottles."

8.2 Additional information on use of abbreviated terms, symbols and codes for flame retardants is included in Guide D1972.

9. Keywords

9.1 abbreviated terms; code numbers; flame retardants; monomers; plastic blends and alloys; plastics; plasticizers; terminology symbols

APPENDIX

(Nonmandatory Information)

X1. A SUGGESTED SYSTEM FOR PREPARING ABBREVIATED TERMS FOR PLASTICS AND RELATED TERMS[6]

NOTE X1.1—The use of the following guide in establishing abbreviated terms for plastics and related terms will promote uniform and systematic standardization.[7]

X1.1 Use upper case letters for the main components in the order in which they occur in the plastics term for which an abbreviated term is being established, for example:

Poly(vinyl chloride) = PVC

X1.2 Use generic terms for family designations, for example:

nylon for polyamide plastics

X1.3 Use figures and letters to distinguish among plastics prepared from various condensation units in a homologous series, for example:

Poly(hexamethylene sebacamide) = PA 610 where, with aliphatic components, the first number(s) refers to the number of carbon atoms in the diamine and the second number(s) refers to the number of carbon atoms in the diacid. It is the convention not to use any separator, such as a comma, dash, or virgule (solidus,/) between the numbers. In these systems there is no confusion when the separator is not used. With alicyclic or aromatic diamines or diacids, a letter acronym is usually used. For example:

meta − phenylene diamine = MPD

terephthalic acid = T

isophthalic acid = I

X1.4 The components in copolymers are separated by hyphens "-" in the term, but usually no separation is required in the abbreviated term. In cases where use of the hyphen may cause confusion, it is acceptable to use a virgule, "/", as the separator. The virgule also is correctly termed a solidus and often, incorrectly, referred to as a "slash" or "diagonal."

X1.5 The components in blends of polymers are separated by a plus sign, "+", in both the term and the abbreviated term.

[7] Based in part on Proposals under Consideration by the Division of Plastics and High Polymers, IUPAC.

X1.6 A more elaborate system for developing abbreviated terms for plastics and related materials has been standardized by ISO in ISO 1043.

SUMMARY OF CHANGES

Committee D20 has identified the location of selected changes to this standard since the last issue (D1600 - 13) that may impact the use of this standard. (February 1, 2014)

(1) Revised subsections 2.2, 4.1, 4.2, 4.4, Section 6, and Note 2.

Committee D20 has identified the location of selected changes to this standard since the last issue (D1600 - 08) that may impact the use of this standard. (April 15, 2013)

(1) Added new abbreviation for poly(lactic acid) to 4.1.