

GLASS TRANSITION TEMPERATURE FOR SELECTED POLYMERS

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Polymer names are based on the IUPAC structure-based nomenclature system described in the table "Naming Organic Polymers". Within each category, names are listed in alphabetical order. Source-based and trivial names are also given (in italics) for the most common polymers. The table does not include polymers for which T_g is not clearly defined because of variability of structure or because of reactions taking place near the glass transition.

All values of T_g cited in this table have been determined by differential scanning calorimetry (DSC) except those values indicated by:

| | |
|-------|-------------------|
| (D) | dynamic method |
| (Dil) | dilatometry |
| (M) | mechanical method |

| Polymer name | Glass transition temperature (T_g /K) |
|---|---|
| ACYCLIC CARBON CHAINS | |
| <i>Polyalkadienes</i> | |
| Poly(alkenylene) <i>Polyalkadiene</i> -[CH=CHCH ₂ CH ₂]- | |
| Poly(<i>cis</i> -1-buteneylene) | 171 |
| <i>cis</i> -1,3- <i>polybutadiene</i> [PBD] | 215 |
| Poly(<i>trans</i> -1-buteneylene) | |
| <i>trans</i> -1,3- <i>polybutadiene</i> [PBD] | 253 |
| Poly(1-chloro- <i>cis</i> -1-buteneylene) | |
| <i>cis</i> -1,3- <i>polychloroprene</i> | 233 |
| Poly(1-chloro- <i>trans</i> -1-buteneylene) | |
| <i>trans</i> -1,3- <i>polychloroprene</i> | 200 |
| Poly(1-methyl- <i>cis</i> -1-buteneylene) | |
| <i>cis</i> -1,3- <i>polyisoprene</i> | 207 |
| Poly(1-methyl- <i>trans</i> -1-buteneylene) | |
| <i>trans</i> -1,3- <i>polyisoprene</i> | 238 |
| Poly(1,4,4-trifluoro-1-buteneylene) | |
| <i>Polyalkenes</i> | |
| Poly(alkylethylene) <i>Poly(alkylethylene)</i> -[RCHCH ₂]- | |
| Poly(1-benzylethylene) | 333 |
| Poly(1-butylethylene) | 223 |
| Poly(1-cyclohexylethylene) (atactic) | 393 |
| Poly(1-cyclohexylethylene) (isotactic) | 406 (D) |
| Poly(1,1-dimethylethylene) | 200 |
| <i>Polyisobutylene</i> [PIB] | |
| Poly(ethylene) | 148 |
| Poly(methylene) | 155 |
| Poly(1-phenethylethylene) | 283 |
| Poly(propylene) (isotactic) | 272 |
| Poly(propylene) (syndiotactic) | ca. 265 |
| Poly[1-(2-pyridyl)ethylene] | 377 |
| Poly[1-(4-pyridyl)ethylene] | 415 |
| Poly(1-vinylethylene) | 273 |
| <i>Polyacrylics</i> | |
| Poly[1-(alkoxycarbonyl)ethylene] <i>Poly(alkyl acrylate)</i> -[(ROCO)CHCH ₂]- | |
| Poly[1-(benzyloxycarbonyl)ethylene] | 279 |
| Poly[1-(butoxycarbonyl)ethylene] | 219 (M) |
| <i>Poly(butyl acrylate)</i> [PBA] | |
| Poly[1-(sec-butoxycarbonyl)ethylene] | 251 |
| Poly[1-(butoxycarbonyl)-1-cyanoethylene] | 358 |
| Poly[1-(butylcarbamoyl)ethylene] | 319 (M) |
| Poly(1-carbamoylethylene) | 438 |
| <i>Polyacrylamide</i> [PAM] | |
| Poly(1-carboxyethylene) | 379 |

| Polymer name | Glass transition temperature (T_g /K) |
|---|--|
| <i>Poly(acrylic acid)</i> [PAA] | |
| Poly[1-(2-chlorophenoxy carbonyl)ethylene] | 326 |
| Poly[1-(4-chlorophenoxy carbonyl)ethylene] | 331 |
| Poly[1-(4-cyanobenzyl oxy carbonyl)ethylene] | 317 |
| Poly[1-(2-cyanoethoxy carbonyl)ethylene] | 277 |
| Poly[1-(cyanomethoxy carbonyl)ethylene] | 433 Dil |
| Poly[1-(4-cyanophenoxy carbonyl)ethylene] | 363 |
| Poly[1-(cyclohexyloxy carbonyl)ethylene] | 292 |
| Poly[1-(2,4-dichlorophenoxy carbonyl)ethylene] | 333 |
| Poly[1-(dimethylcarbamoyl)ethylene] | 362 |
| Poly[1-(ethoxycarbonyl)ethylene] | 249 |
| <i>Poly(ethyl acrylate)</i> [PEA] | |
| Poly[1-(ethoxycarbonyl)-1-fluoroethylene] | 316 |
| Poly[1-(2-ethoxycarbonylphenoxy carbonyl)ethylene] | 303 |
| Poly[1-(3-ethoxycarbonylphenoxy carbonyl)ethylene] | 297 |
| Poly[1-(4-ethoxycarbonylphenoxy carbonyl)ethylene] | 310 |
| Poly[1-(2-ethoxyethoxy carbonyl)ethylene] | 223 |
| Poly[1-(3-ethoxypropoxy carbonyl)ethylene] | 218 |
| Poly[1-(isopropoxycarbonyl)ethylene] | 267-270 |
| Poly[1-(methoxycarbonyl)ethylene] | 283 |
| <i>Poly(methyl acrylate)</i> [PMA] | |
| Poly[1-(2-methoxycarbonylphenoxy carbonyl)ethylene] | 319 |
| Poly[1-(3-methoxycarbonylphenoxy carbonyl)ethylene] | 311 |
| Poly[1-(4-methoxycarbonylphenoxy carbonyl)ethylene] | 340 |
| Poly[1-(2-methoxyethoxy carbonyl)ethylene] | 223 |
| Poly[1-(4-methoxyphenoxy carbonyl)ethylene] | 324 |
| Poly[1-(3-methoxypropoxy carbonyl)ethylene] | 198 |
| Poly[1-(2-naphthyl oxy carbonyl)ethylene] | 358 |
| Poly[1-(pentachlorophenoxy carbonyl)ethylene] | 420 |
| Poly[1-(phenethoxycarbonyl)ethylene] | 270 |
| Poly[1-(phenoxy carbonyl)ethylene] | 330 |
| Poly[1-(m-tolyl oxy carbonyl)ethylene] | 298 |
| Poly[1-(o-tolyl oxy carbonyl)ethylene] | 325 |
| Poly[1-(p-tolyl oxy carbonyl)ethylene] | 316 |
| Poly[1-(2,2,2-trifluoro ethoxy carbonyl)ethylene] | 263 |
| <i>Polymethacrylics</i> | |
| Poly[1-(alkoxycarbonyl)-1-methylethylene] <i>Poly(alkyl methacrylate)</i> -[(ROCO)(Me)CCH ₂]- | |
| Poly[1-(benzyloxycarbonyl)-1-methylethylene] | 327 |
| Poly[1-(2-bromoethoxycarbonyl)-1-methylethylene] | 325 |
| Poly[(1-butoxycarbonyl)-1-methylethylene] | 293 |
| <i>Poly(butyl methacrylate)</i> [PBMA] | |
| Poly[1-(sec-butoxycarbonyl)-1-methylethylene] | 333 |
| Poly[1-(tert-butoxycarbonyl)-1-methylethylene] | 391 |
| Poly[1-(2-chloroethoxycarbonyl)-1-methylethylene] | ca 315 |
| Poly[1-(2-cyanoethoxycarbonyl)-1-methylethylene] | 364 |
| Poly[1-(4-cyanophenoxy carbonyl)-1-methylethylene] | 428 |
| Poly[1-(cyclohexyloxy carbonyl)-1-methylethylene] (atactic) | 356 |
| Poly[1-(cyclohexyloxy carbonyl)-1-methylethylene] (isotactic) | 324 |
| Poly[1-(dimethylaminoethoxycarbonyl)-1-methylethylene] | 292 |
| Poly[1-(ethoxycarbonyl)-1-ethylethylene] | 300 |
| Poly[1-(ethoxycarbonyl)-1-methylethylene] (atactic) <i>Poly(ethyl methacrylate)</i> [PEMA] | 338 |
| Poly[1-(ethoxycarbonyl)-1-methylethylene] (isotactic) | 285 |
| Poly[1-(ethoxycarbonyl)-1-methylethylene] (syndiotactic) | 339 |
| Poly[1-(hexyloxycarbonyl)-1-methylethylene] | 268 |
| Poly[1-(isobutoxycarbonyl)-1-methylethylene] | 326 |
| Poly[1-(isopropoxycarbonyl)-1-methylethylene] | 354 |
| Poly[1-(methoxycarbonyl)-1-methylethylene] (atactic) <i>Poly(methyl methacrylate)</i> [PMMA] | 378 |
| Poly[1-(methoxycarbonyl)-1-methylethylene] (isotactic) | 311 |
| Poly[1-(methoxycarbonyl)-1-methylethylene] (syndiotactic) | 378 |
| Poly[1-(4-methoxycarbonylphenoxy)-1-methylethylene] | 379 |

| Polymer name | Glass transition temperature (T_g /K) |
|--|--|
| Poly[1-(methoxycarbonyl)-1-phenylethylene]] (atactic) | 391 |
| Poly[1-(methoxycarbonyl)-1-phenylethylene]] (isotactic) | 397 |
| Poly[1-methyl-1-(phenethoxycarbonyl)ethylene] | 299 |
| Poly[1-methyl-1-(phenoxy carbonyl)ethylene] | 383 |
| <i>Polyvinyl ethers, alcohols, and ketones</i> | |
| Poly(1-alkoxyethylene) <i>Poly(alkyl vinyl ether)</i> $-[\text{ROCHCH}_2]-$ | |
| Poly(1-hydroxyethylene) <i>Poly(vinyl alcohol)</i> $-[\text{HOCHCH}_2]-$ | |
| Poly(1-alkanoyloxyethylene) <i>Poly(alkyl vinyl ketone)</i> $-[\text{RCOCHCH}_2]-$ | |
| Poly(1-butoxyethylene) | 218 |
| Poly(1- <i>sec</i> -butoxyethylene) | 253 |
| Poly(1- <i>tert</i> -butoxyethylene) | 361 |
| Poly[1-(butylthio)ethylene] | 253 |
| Poly(1-ethoxyethylene) | 230 |
| Poly[1-(4-ethylbenzoyl)ethylene] | 325 |
| Poly(1-hydroxyethylene) | 358 (D) |
| <i>Poly(vinyl alcohol)</i> [PVA] | |
| Poly(hydroxymethylene) | 407 |
| Poly(1-isopropoxyethylene) | 270 |
| Poly[1-(4-methoxybenzoyl)ethylene] | 319 (M) |
| Poly(1-methoxyethylene) | 242 |
| <i>Poly(methyl vinyl ether)</i> [PMVE] | |
| Poly[1-(methylthio)ethylene] | 272 |
| Poly(1-propoxyethylene) | 224 |
| Poly[1-(trifluoromethoxy)trifluoroethylene] | 268 |
| <i>Polyvinyl halides and nitriles</i> | |
| Poly(1-haloethylene) <i>Poly(vinyl halide)</i> $-[\text{XCHCH}_2]-$ | |
| Poly(1-cyanoethylene) <i>Poly(acrylonitrile)</i> $-[\text{NCCHCH}_2]-$ | |
| Poly(1-chloroethylene) | 354 |
| <i>Poly(vinyl chloride)</i> [PVC] | |
| Poly(chlorotrifluoroethylene) | 373 |
| Poly(1-cyanoethylene) | 370 |
| <i>Polyacrylonitrile</i> [PAN] | |
| Poly(1-cyano-1-methylethylene) | 393 |
| <i>Polymethacrylonitrile</i> | |
| Poly(1,1-dichloroethylene) | 255 |
| <i>Poly(vinylidene chloride)</i> | |
| Poly(1,1-difluoroethylene) | ca 233 |
| <i>Poly(vinylidene fluoride)</i> | |
| Poly(1-fluoroethylene) | 314 (M) |
| <i>Poly(vinyl fluoride)</i> | |
| Poly(1-hexafluoropropylene) | 425 |
| Poly[1-(2-iodoethyl)ethylene] | 343 |
| Poly(tetrafluoroethylene) | (160) |
| Poly[1-(trifluoromethyl)ethylene] | 300 |
| <i>Polyvinyl esters</i> | |
| Poly[1-(alkanoyloxy)ethylene] <i>Poly(vinyl alkanoate)</i> $-[\text{RCOOCHCH}_2]-$ | |
| Poly(1-acetoxyethylene) | 305 |
| <i>Poly(vinyl acetate)</i> [PVAc] | |
| Poly[1-(benzoyloxy)ethylene] | 344 |
| Poly[1-(4-bromobenzoyloxy)ethylene] | 365 |
| Poly[1-(2-chlorobenzoyloxy)ethylene] | 335 |
| Poly[1-(3-chlorobenzoyloxy)ethylene] | 338 |
| Poly[1-(4-chlorobenzoyloxy)ethylene] | 357 |
| Poly[1-(cyclohexanoyloxy)ethylene] | 349 (M) |
| Poly[1-(4-ethoxybenzoyloxy)ethylene] | 343 |
| Poly[1-(4-ethylbenzoyloxy)ethylene] | 326 |

| Polymer name | Glass transition temperature (T_g /K) |
|---|--|
| Poly[1-(4-isopropylbenzoyloxy)ethylene] | 342 |
| Poly[1-(2-methoxybenzoyloxy)ethylene] | 338 |
| Poly[1-(3-methoxybenzoyloxy)ethylene] | ca 317 |
| Poly[1-(4-methoxybenzoyloxy)ethylene] | 360 |
| Poly[1-(4-methylbenzoyloxy)ethylene] | 343 |
| Poly[1-(4-nitrobenzoyloxy)ethylene] | 395 |
| Poly[1-(propionyloxy)ethylene] | 283 (M) |
| <i>Polystyrenes</i> | |
| Poly(1-phenylethylene) <i>Polystyrene</i> $-[\text{C}_6\text{H}_5\text{CHCH}_2]-$ | |
| Poly[1-(4-acetylphenyl)ethylene] | 389 (M) |
| Poly[1-(4-benzoylphenyl)ethylene] | 371 (M) |
| Poly[1-(4-bromophenyl)ethylene] | 391 |
| Poly[1-(4-butoxyphenyl)ethylene] | ca 320 (M) |
| Poly[1-(4-butoxycarbonylphenyl)ethylene] | 349 (M) |
| Poly[(1-(4-butylphenyl)ethylene] | 279 |
| Poly[1-(4-carboxyphenyl)ethylene] | 386 (M) |
| Poly[1-(2-chlorophenyl)ethylene] | 392 |
| Poly[1-(3-chlorophenyl)ethylene] | 363 |
| Poly[1-(4-chlorophenyl)ethylene] | 383 |
| Poly[1-(2,4-dichlorophenyl)ethylene] | 406 |
| Poly[1-(2,5-dichlorophenyl)ethylene] | 379 |
| Poly[1-(2,6-dichlorophenyl)ethylene] | 440 |
| Poly[1-(3,4-dichlorophenyl)ethylene] | 401 |
| Poly[1-(2,4-dimethylphenyl)ethylene] | 385 |
| Poly[1-(4-(dimethylamino)phenyl)ethylene] | 398 (M) |
| Poly[1-(4-ethoxyphenyl)ethylene] | ca 359 (M) |
| Poly[1-(4-ethoxycarbonylphenyl)ethylene] | 367 (M) |
| Poly[1-(4-fluorophenyl)ethylene] | 368 |
| Poly[1-(4-iodophenyl)ethylene] | 429 |
| Poly[1-(4-methoxyphenyl)ethylene] | 386 |
| Poly[1-(4-methoxycarbonylphenyl)ethylene] | 386 (M) |
| Poly(1-methyl-1-phenylethylene) | 373 |
| <i>Poly(α-methylstyrene)</i> | |
| Poly[1-(2-(methylamino)phenyl)ethylene] | 462 (M) |
| Poly(1-phenylethylene) | 373 |
| <i>Polystyrene [PS]</i> | |
| Poly[1-(4-propoxyphenyl)ethylene] | 343 (M) |
| Poly[1-(4-propoxycarbonylphenyl)ethylene] | 365 (M) |
| Poly(1- <i>o</i> -tolylethylene) | 409 |

CHAINS WITH CARBOCYCLIC UNITS

| | |
|--|------------|
| Poly(arylenealkylene) $-[-\text{Ar}-(\text{CH}_2)_n]-$ | |
| Poly[1-(2-bromo-1,4-phenylene)ethylene] | 353 (M) |
| Poly[1-(2-chloro-1,4-phenylene)ethylene] | 343 (M) |
| Poly[1-(2-cyano-1,4-phenylene)ethylene] | 363 (M) |
| Poly[1-(2,5-dimethyl-1,4-phenylene)ethylene] | 373 (M) |
| Poly[1-(2-ethyl-1,4-phenylene)ethylene] | 298 (M) |
| Poly[1-(1,4-naphthylene)ethylene] | 433 (M) |
| Poly[1-(1,4-phenylene)ethylene] | ca 353 (M) |

CHAINS WITH HETEROATOM UNITS

Main chain oxide units

| | |
|---|-----|
| Poly(oxyalkylene) <i>Poly(alkylene oxide)</i> $-[\text{O}(\text{CH}_2)_n]-$ | |
| Poly[oxy(1,1-bis(chloromethyl)trimethylene)] | 265 |
| Poly[oxy(1-(bromomethyl)ethylene)] | 259 |
| Poly[oxy(1-(butoxymethyl)ethylene)] | 194 |
| Poly[oxy(1-butylethylene)] | 203 |
| Poly[oxy(1- <i>tert</i> -butylethylene)] | 308 |
| Poly[oxy(1-chloromethyl)ethylene)] | 251 |

| Polymer name | Glass transition temperature (T_g /K) |
|--|--|
| <i>Poly(epichlorohydrin)</i> | |
| Poly[oxy(2,6-dimethoxy-1,4-phenylene)] | 440 |
| Poly[oxy(1,1-dimethylethylene)] | 264 |
| Poly[oxy(2,6-dimethyl-1,4-phenylene)] | 482 |
| Poly[oxy(2,6-diphenyl-1,4-phenylene)] | 493 |
| Poly[oxy(1-ethylethylene)] | 203 |
| Poly(oxyethylidene) | 243 |
| <i>Polyacetaldehyde</i> | |
| Poly[oxy(1-(methoxymethyl)ethylene)] | 211 |
| Poly[oxy(2-methyl-6-phenyl-1,4-phenylene)] | 428 |
| Poly[oxy(1-methyltrimethylene)] | 223 (D) |
| Poly[oxy(2-methyltrimethylene)] | 218 |
| Poly(oxy-1,4-phenylene) | 358 |
| <i>Poly(phenylene oxide)</i> [PPO] | |
| Poly[oxy(1-phenylethylene)] | 313 |
| Poly(oxytetramethylene) | 189 |
| <i>Poly(tetrahydrofuran)</i> [PTMO] | |
| Poly(oxytrimethylene) | 195 |
| <i>Main-chain ester or anhydride units</i> | |
| Poly(oxyalkyleneoxyalkanedioyl) <i>Poly(alkylene alkanedioate)</i> --[O(CH ₂) _m OCO(CH ₂) _n CO]-- | |
| Poly(oxyadipoyloxydecamethylene) | 217 |
| Poly(oxyadipoyloxy-1,4-phenyleneisopropylidene-1,4-phenylene) | 341 |
| Poly(oxy carbonyloxy-1,4-phenylene-isopropylidene-1,4-phenylene) | 422 |
| <i>Bisphenol A polycarbonate</i> | |
| Poly(oxy carbonylpentamethylene) | 213 |
| Poly(oxy carbonyl-1,4-phenylene methylene-1,4-phenylene) | 395 |
| Poly(oxy carbonyl-1,4-phenyleneisopropylidene-1,4-phenylene) | 333 |
| Poly[oxy(2,6-dimethyl-1,4-phenyleneisopropylidene-3,5-dimethyl-1,4-phenylene)oxysebacoyl] | 318 |
| Poly(oxy ethylene carbonyl-1,4-cyclohexylene carbonyl) (trans) | 291 |
| Poly(oxy ethylene oxy carbonyl-1,4-naphthylene carbonyl) | 337 |
| Poly(oxy ethylene oxy carbonyl-1,5-naphthylene carbonyl) | 344 |
| Poly(oxy ethylene oxy carbonyl-2,6-naphthylene carbonyl) | 386 |
| Poly(oxy ethylene oxy carbonyl-2,7-naphthylene carbonyl) | 392 |
| Poly(oxy ethylene oxy terephthaloyl) | 342 |
| <i>Poly(ethylene terephthalate)</i> [PET] | |
| Poly(oxyisophthaloyl) | 403 (D) |
| Poly(oxy(1-oxo-2,2-dimethyltrimethylene)) | 263 |
| <i>Poly(pivalolactone)</i> | |
| Poly(oxy-1,4-phenyleneisopropylidene-1,4-phenyleneoxysebacoyl) | 280 |
| Poly(oxy-1,4-phenyleneoxy-1,4-phenyleneoxy-carbonyl-1,4-phenylene) [PEEK] | 416 |
| Poly(oxypropyleneoxyterephthaloyl) | 341 |
| Poly[oxyterephthaloyloxy(2,6-dimethyl-1,4-phenyleneisopropylidene-3,5-dimethyl-1,4-(D)phenylene)] | 498 |
| Poly(oxyterephthaloyloxyoctamethylene) | 318 (D) |
| Poly(oxyterephthaloyloxy-1,4-phenyleneisopropylidene-1,4-phenylene) | 478 |
| <i>Poly(bisphenol A terephthalate)</i> | |
| Poly(oxytetramethyleneoxyterephthaloyl) | 323 |
| <i>Poly(butylene terephthalate)</i> [PBT] | |
| <i>Main-chain amide units</i> | |
| Poly(iminoalkyleneiminoalkanedioyl) <i>Poly(alkylene alkanediamide)</i> --[NH(CH ₂) _m NHCO(CH ₂) _n CO]-- | |
| Poly(imino adipoyliminodecamethylene) | 313 |
| <i>Nylon 10,6</i> | |
| Poly(imino adipoyliminohexamethylene) | ca 323 |
| <i>Nylon 6,6</i> | |
| Poly(imino adipoyliminoctamethylene) | 318 |
| <i>Nylon 8,6</i> | |
| Poly[imino adipoyliminotrimethylene(methylimino)trimethylene] | 278 |
| Poly(iminocarbonyl-1,4-cyclohexylene methylene) | 466 |
| Poly[iminocarbonyl-1,4-phenylene(2-oxoethylene)iminohexamethylene] | 377 |
| Poly(iminoethylene-1,4-phenyleneethylenemimosebacoyl) | 378 (D) |

| Polymer name | Glass transition temperature (T_g /K) |
|--|--|
| Poly(iminohexamethyleneiminoazelaoyl) <i>Nylon 6,9</i> | 331 |
| Poly(iminohexamethyleneiminododecanedioyl) <i>Nylon 6, 12</i> | 319 |
| Poly(iminohexamethyleneiminopimeloyl) <i>Nylon 6,7</i> | 331 |
| Poly(iminohexamethyleneiminosebacoyl) <i>Nylon 6,10</i> | 323 |
| Poly(iminohexamethyleneiminosuberoyl) <i>Nylon 6,8</i> | 330 |
| Poly(iminoisophthaloylimino-4,4'-biphenylene) | 558 |
| Poly(iminoisophthaloyliminohexamethylene) | 390 |
| Poly(iminoisophthaloyliminomethylene-1,4-cyclohexylenemethylene) | 481 |
| Poly(iminoisophthaloyliminomethylene-1,3-phenylenemethylene) | 438 (M) |
| Poly[iminomethylene(2,5-dimethyl-1,4-phenylene)methyleneiminosuberoyl] | 351 |
| Poly(imino-1,5-naphthyleneiminoisophthaloyl) | 598 |
| Poly(imino-1,5-naphthyleneiminoterephthaloyl) | 578 |
| Poly(iminoctamethyleneiminodecanedioyl) <i>Nylon 8,10</i> | 333 |
| Poly(iminoxalyliminohexamethylene) <i>Nylon 6,2</i> | 430 |
| Poly[imino(1-oxohexamethylene)] <i>Nylon 6</i> | 326 |
| Poly[imino(1-oxodecamethylene)] <i>Nylon 10</i> | 315 |
| Poly[imino(1-oxoheptamethylene)] <i>Nylon 7</i> | 325 |
| Poly[imino(1-oxo-3-methyltrimethylene)] | 369 |
| Poly[imino(1-oxanonamethylene)] <i>Nylon 9</i> | 319 |
| Poly[imino(1-oxooctamethylene)] <i>Nylon 8</i> | 323 |
| Poly[imino(1-oxotrimethylene)] <i>Nylon 3</i> | 384 |
| Poly(iminopentamethyleneimino adipoyl) <i>Nylon 5,6</i> | 318 |
| Poly[iminopentamethyleneimino carbonyl-1,4-phenylene(2-oxoethylene)] | 376 |
| Poly(imino-1,3-phenyleneiminoisophthaloyl) | 553 (M) |
| Poly(imino-1,4-phenyleneiminoterephthaloyl) | 618 |
| Poly(iminopimeloyliminoheptamethylene) <i>Nylon 7,7</i> | 328 |
| Poly(iminoterephthaloylimino-4,4'-biphenylene) | 613 |
| Poly(iminotetramethyleneimino adipoyl) <i>Nylon 4,6</i> | 316 |
| Poly[iminotetramethyleneimino carbonyl-1,4-phenylene(2-oxoethylene)] | 357 |
| Poly(iminotrimethyleneimino adipoyliminotrimethylene) | 307 |
| Poly[iminotrimethyleneimino carbonyl-1,4-phenylene(2-oxoethylene)] | 382 |
| Poly(oxy-1,4-phenyleneiminoterephthaloyl-imino-1,4-phenylene) | 613 |
| Poly(sulfonylimino-1,4-phenyleneimino adipoylimino-1,4-phenylene) | 467 |
| <i>Main-chain urethane units</i> | |
| Poly(oxyalkyleneoxycarbonyliminoalkyleneiminocarbonyl)-[O(CH ₂) _m OCONH(CH ₂) _n NHCO]- | |
| Poly(oxyethyleneoxycarbonyliminohexamethyleneiminocarbonyl) | 329 |
| Poly[oxyethyleneoxycarbonylimino(6-methyl-1,3-phenylene)iminocarbonyl] | 325 |
| Poly(oxyethyleneoxycarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyl) | 412 |
| Poly(oxyhexamethyleneoxycarbonyliminohexamethyleneiminocarbonyl) | 332 |
| Poly[oxyhexamethyleneoxycarbonylimino(6-methyl-1,3-phenylene)iminocarbonyl] | 305 |
| Poly(oxyhexamethyleneoxycarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyl) | 364 |
| Poly(oxyoctamethyleneoxycarbonyliminohexamethyleneiminocarbonyl) | 331 |
| Poly[oxyoctamethyleneoxycarbonylimino(6-methyl-1,3-phenylene)iminocarbonyl] | 337 |
| Poly(oxyoctamethyleneoxycarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyl) | 352 |

| Polymer name | Glass transition temperature (T_g /K) |
|---|--|
| Poly(oxytetramethyleneoxycarbonyliminohexamethyleneiminocarbonyl) | 332 |
| Poly[oxytetramethyleneoxycarbonylimino(6-methyl-1,3-phenylene)iminocarbonyl] | 315 |
| Poly(oxytetramethyleneoxycarbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyl) | 382 |

Main-chain siloxanes

| | |
|---|---------|
| Poly[oxy(dialkylsilylene)] <i>Poly(dialkylsiloxane)</i> $-[\text{O}(\text{R}_2\text{Si})]-$ | |
| Poly[oxy(dimethylsilylene)] | 148 |
| <i>Poly(dimethylsiloxane)</i> [PDMS] | |
| Poly[oxy(dimethylsilylene)oxy-1,4-phenylene] | 363 (M) |
| Poly[oxy(dimethylsilylene)oxy-1,4-phenyleneisopropylidene-1,4-phenylene] | 318 (M) |
| Poly[oxy(diphenylsilylene)] | 238 |
| <i>Poly(diphenylsiloxane)</i> | |
| Poly[oxy(diphenylsilylene)-1,3-phenylene] | ca 331 |
| Poly[oxy((methyl)phenylsilylene)] | 187 |
| Poly[oxy((methyl)-3,3,3-trifluoropropylsilylene] | <193 |

Main-chain sulfur-containing units

| | |
|--|---------|
| Poly(dithioethylene) | 223 |
| Poly(dithiomethylene-1,4-phenylenemethylene) | 296 |
| Poly(oxy-4,4'-biphenylene-1,4-phenylenesulfonyl-1,4-phenylene) | 503 (M) |
| Poly(oxycarbonyloxy-1,4-phenylenethio-1,4-phenylene) | ca 383 |
| Poly(oxyethylenedithioethylene) | 220 (M) |
| Poly[oxy(2-hydroxytrimethylene)oxy-1,4-phenylenesulfonyl-1,4-phenylene] | 428 |
| Poly(oxyethyleneoxyethylenedithioethylene) | 214 |
| Poly(oxy-1,4-phenylenesulfinyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) | 478 (M) |
| Poly(oxy-1,4-phenylenesulfinyl-1,4-phenyleneoxy-1,4-phenyleneisopropylidene-1,4-phenylene) | 438 (M) |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenylene) | 487 |
| Poly(oxy-1,4-phenylenesulfonyl-4,4'-biphenylenesulfonyl-1,4-phenylene) | 533 |
| Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy(2,6-dimethyl-1,4-phenylene)isopropylidene (3,5-dimethyl-1,4-phenylene)] | 508 (M) |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) | 478 (M) |
| Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene(hexafluoroisopropylidene)1,4-phenylene] | 478 (M) |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenyleneisopropylidene-1,4-phenylene) | 449 |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylenemethylene-1,4-phenylene) | 453 (M) |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylenethio-1,4-phenylene) | 448 (M) |
| Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxyterephthaloyl) | 522 |
| Poly(oxytetramethyleneedithiotetramethylene) | 197 |
| Poly(sulfonyl-1,2-cyclohexylene) | 401 |
| Poly(sulfonyl-1,3-cyclohexylene) | 381 |
| Poly(sulfonyl-1,4-phenylenemethylene-1,4-phenylene) | 497 |
| Poly(thio-1,3-cyclohexylene) | 221 |
| Poly[thio(difluoromethylene)] | 155 |
| Poly(thioethylene) | 223 |
| Poly[thio(1-ethylthylene)] | 218 |
| Poly[thio(1-methyl-3-oxotrimethylene)] | 285 |
| Poly[thio(1-methyltrimethylene)] | 214 |
| Poly[(thio(1-oxohexamethylene)] | 292 |
| Poly(thio-1,4-phenylene) | 370 |
| Poly(thiopropylene) | 226 |

Main-chain heterocyclic units

| | |
|--|---------|
| Poly(1,3-dioxa-4,6-cyclohexylenemethylene) | 378 |
| <i>Poly(vinyl formal)</i> | |
| Poly[(2,6-dioxopiperidine-1,4-diyl)trimethylene] | 363 |
| Poly[(2-methyl-1,3-dioxa-4,6-cyclohexylene)methylene] | 355 |
| <i>Poly(vinyl acetal)</i> | |
| Poly(1,4-piperazinediylcarbonyloxyethyleneoxycarbonyl) | 333 |
| Poly(1,4-piperazinediylsophthaloyl) | 465 (M) |
| Poly[(2-propyl-1,3-dioxa-4,6-cyclohexylene)methylene] | 322 |
| <i>Poly(vinyl butyral)</i> | |
| Poly(3,6-pyridazinediyloxy-1,4-phenyleneisopropylidene-1,4-phenyleneoxy) | 453 (M) |
| Poly(2,5-pyridinediylcarbonyliminohexamethyleneiminocarbonyl) | 322 |