

# TLG Guide to Unicode Precomposed Forms

This document gives additional information on the encoding of polytonic Greek using Unicode. See the [TLG Beta Code Quick Reference Guide](#) for the standard combining forms.

Note. The UTC recommends the use of composing characters for keying polytonic Greek and not the precomposed characters found in the Greek and Coptic and Extended Greek ranges. Wherever possible we use composing characters on our website. However, most browsers do not yet render composing characters adequately. For these browsers we have no option but to use precomposed characters for the time being. The UTC has deemed this an acceptable stop-gap solution. Once a majority of applications can render the composing characters adequately, the precomposed characters will become deprecated.

## *Precomposed Forms*

- The first column gives the character name, the second its Unicode codepoint.
- It should be noted that certain combinations are not included in the Unicode standard, and also that the reasons for exclusion are not always consistent. E.g. there is a capital alpha with a grave (1FBA) but no capital alpha with circumflex.
- If a form is not given in the table below, the combining characters should be used instead.

## **Alpha**

Lowercase Alpha	03B1
Lowercase Alpha + grave	1F70
Lowercase Alpha + acute	03AC
Lowercase Alpha + circumflex	1FB6
Lowercase Alpha + smooth breathing	1F00
Lowercase Alpha + rough breathing	1F01
Lowercase Alpha + smooth breathing + grave	1F02
Lowercase Alpha + rough breathing + grave	1F03
Lowercase Alpha + smooth breathing + acute	1F04
Lowercase Alpha + rough breathing + acute	1F05
Lowercase Alpha + smooth breathing + circumflex	1F06
Lowercase Alpha + rough breathing + circumflex	1F07
Lowercase Alpha + iota subscript	1FB3
Lowercase Alpha + iota subscript + grave	1FB2
Lowercase Alpha + iota subscript + acute	1FB4
Lowercase Alpha + iota subscript + circumflex	1FB7
Lowercase Alpha + iota subscript + smooth breathing	1F80
Lowercase Alpha + iota subscript + rough breathing	1F81
Lowercase Alpha + iota subscript + smooth breathing + grave	1F82

Lowercase Alpha + iota subscript + rough breathing + grave	1F83
Lowercase Alpha + iota subscript + smooth breathing + acute	1F84
Lowercase Alpha + iota subscript + rough breathing + acute	1F85
Lowercase Alpha + iota subscript + smooth breathing + circumflex	1F86
Lowercase Alpha + iota subscript + rough breathing + circumflex	1F87
Lowercase Alpha + breve	1FB0
Lowercase Alpha + macron	1FB1
Uppercase Alpha	0391
Uppercase Alpha + grave	1FBA
Uppercase Alpha + acute	0386
Uppercase Alpha + smooth breathing	1F08
Uppercase Alpha + rough breathing	1F09
Uppercase Alpha + smooth breathing + grave	1F0A
Uppercase Alpha + rough breathing + grave	1F0B
Uppercase Alpha + smooth breathing + acute	1F0C
Uppercase Alpha + rough breathing + acute	1F0D
Uppercase Alpha + smooth breathing + circumflex	1F0E
Uppercase Alpha + rough breathing + circumflex	1F0F
Uppercase Alpha + iota subscript	1FBC
Uppercase Alpha + iota subscript + smooth breathing	1F88
Uppercase Alpha + iota subscript + rough breathing	1F89
Uppercase Alpha + iota subscript + smooth breathing + grave	1F8A
Uppercase Alpha + iota subscript + rough breathing + grave	1F8B
Uppercase Alpha + iota subscript + smooth breathing + acute	1F8C
Uppercase Alpha + iota subscript + rough breathing + acute	1F8D
Uppercase Alpha + iota subscript + smooth breathing + circumflex	1F8E
Uppercase Alpha + iota subscript + rough breathing + circumflex	1F8F
Uppercase Alpha + breve	1FB8
Uppercase Alpha + macron	1FB9

## Epsilon

Lowercase Epsilon	03B5
Lowercase Epsilon + grave	1F72
Lowercase Epsilon + acute	03AD
Lowercase Epsilon + smooth breathing	1F10
Lowercase Epsilon + rough breathing	1F11
Lowercase Epsilon + smooth breathing + grave	1F12
Lowercase Epsilon + rough breathing + grave	1F13
Lowercase Epsilon + smooth breathing + acute	1F14
Lowercase Epsilon + rough breathing + acute	1F15
Uppercase Epsilon	0395
Uppercase Epsilon + grave	1FC8
Uppercase Epsilon + acute	0388
Uppercase Epsilon + smooth breathing	1F18
Uppercase Epsilon + rough breathing	1F19

Uppercase Epsilon + smooth breathing + grave	1F1A
Uppercase Epsilon + rough breathing + grave	1F1B
Uppercase Epsilon + smooth breathing + acute	1F1C
Uppercase Epsilon + rough breathing + acute	1F1D

## Eta

Lowercase Eta	03B7
Lowercase Eta + grave	1F74
Lowercase Eta + acute	03AE
Lowercase Eta + circumflex	1FC6
Lowercase Eta + smooth breathing	1F20
Lowercase Eta + rough breathing	1F21
Lowercase Eta + smooth breathing + grave	1F22
Lowercase Eta + rough breathing + grave	1F23
Lowercase Eta + smooth breathing + acute	1F24
Lowercase Eta + rough breathing + acute	1F25
Lowercase Eta + smooth breathing + circumflex	1F26
Lowercase Eta + rough breathing + circumflex	1F27
Lowercase Eta + iota subscript	1FC3
Lowercase Eta + iota subscript + grave	1FC2
Lowercase Eta + iota subscript + acute	1FC4
Lowercase Eta + iota subscript + circumflex	1FC7
Lowercase Eta + iota subscript + smooth breathing	1F90
Lowercase Eta + iota subscript + rough breathing	1F91
Lowercase Eta + iota subscript + smooth breathing + grave	1F92
Lowercase Eta + iota subscript + rough breathing + grave	1F93
Lowercase Eta + iota subscript + smooth breathing + acute	1F94
Lowercase Eta + iota subscript + rough breathing + acute	1F95
Lowercase Eta + iota subscript + smooth breathing + circumflex	1F96
Lowercase Eta + iota subscript + rough breathing + circumflex	1F97
Uppercase Eta	0397
Uppercase Eta + grave	1FCA
Uppercase Eta + acute	0389
Uppercase Eta + smooth breathing	1F28
Uppercase Eta + rough breathing	1F29
Uppercase Eta + smooth breathing + grave	1F2A
Uppercase Eta + rough breathing + grave	1F2B
Uppercase Eta + smooth breathing + acute	1F2C
Uppercase Eta + rough breathing + acute	1F2D
Uppercase Eta + smooth breathing + circumflex	1F2E
Uppercase Eta + rough breathing + circumflex	1F2F
Uppercase Eta + iota subscript	1FCC
Uppercase Eta + iota subscript + smooth breathing	1F98
Uppercase Eta + iota subscript + rough breathing	1F99
Uppercase Eta + iota subscript + smooth breathing + grave	1F9A

Uppercase Eta + iota subscript + rough breathing + grave	1F9B
Uppercase Eta + iota subscript + smooth breathing + acute	1F9C
Uppercase Eta + iota subscript + rough breathing + acute	1F9D
Uppercase Eta + iota subscript + smooth breathing + circumflex	1F9E
Uppercase Eta + iota subscript + rough breathing + circumflex	1F9F

**Iota**

Lowercase Iota	03B9
Lowercase Iota + grave	1F76
Lowercase Iota + acute	03AF
Lowercase Iota + circumflex	1FD6
Lowercase Iota + smooth breathing	1F30
Lowercase Iota + rough breathing	1F31
Lowercase Iota + smooth breathing + grave	1F32
Lowercase Iota + rough breathing + grave	1F33
Lowercase Iota + smooth breathing + acute	1F34
Lowercase Iota + rough breathing + acute	1F35
Lowercase Iota + smooth breathing + circumflex	1F36
Lowercase Iota + rough breathing + circumflex	1F37
Lowercase Iota + diaeresis + grave	1FD2
Lowercase Iota + diaeresis + acute	1FD3
Lowercase Iota + diaeresis +circumflex	1FD7
Lowercase Iota + breve	1FD0
Lowercase Iota + macron	1FD1
Uppercase Iota	0399
Uppercase Iota + grave	1FDA
Uppercase Iota + acute	038A
Uppercase Iota + smooth breathing	1F38
Uppercase Iota + rough breathing	1F39
Uppercase Iota + smooth breathing + grave	1F3A
Uppercase Iota + rough breathing + grave	1F3B
Uppercase Iota + smooth breathing + acute	1F3C
Uppercase Iota + rough breathing + acute	1F3D
Uppercase Iota + smooth breathing + circumflex	1F3E
Uppercase Iota + rough breathing + circumflex	1F3F
Uppercase Iota + breve	1FD8
Uppercase Iota + macron	1FD9

**Omicron**

Lowercase Omicron	03BF
Lowercase Omicron + grave	1F78
Lowercase Omicron + acute	03CC
Lowercase Omicron + smooth breathing	1F40
Lowercase Omicron + rough breathing	1F41
Lowercase Omicron + smooth breathing + grave	1F42

Lowercase Omicron + rough breathing + grave	1F43
Lowercase Omicron + smooth breathing + acute	1F44
Lowercase Omicron + rough breathing + acute	1F45
Lowercase Omicron + diaeresis + grave	1FE2
Lowercase Omicron + diaeresis + acute	1FE3
Lowercase Omicron + diaeresis +circumflex	1FE7
Lowercase Omicron + breve	1FE0
Lowercase Omicron + macron	1FE1
Uppercase Omicron	039F
Uppercase Omicron + grave	1FF8
Uppercase Omicron + acute	038C
Uppercase Omicron + smooth breathing	1F48
Uppercase Omicron + rough breathing	1F49
Uppercase Omicron + smooth breathing + grave	1F4A
Uppercase Omicron + rough breathing + grave	1F4B
Uppercase Omicron + smooth breathing + acute	1F4C
Uppercase Omicron + rough breathing + acute	1F4D
Uppercase Omicron + breve	1FE8
Uppercase Omicron + macron	1FE9

**Rho**

Lowercase Rho + smooth breathing	1FE4
Lowercase Rho + rough breathing	1FE5
Uppercase Rho + rough breathing	1FEC

**Upsilon**

Lowercase Upsilon	03C5
Lowercase Upsilon + grave	1F7A
Lowercase Upsilon + acute	03CD
Lowercase Upsilon + circumflex	1FE6
Lowercase Upsilon + smooth breathing	1F50
Lowercase Upsilon + rough breathing	1F51
Lowercase Upsilon + smooth breathing + grave	1F52
Lowercase Upsilon + rough breathing + grave	1F53
Lowercase Upsilon + smooth breathing + acute	1F54
Lowercase Upsilon + rough breathing + acute	1F55
Lowercase Upsilon + smooth breathing + circumflex	1F56
Lowercase Upsilon + rough breathing + circumflex	1F57
Uppercase Upsilon	03A5
Uppercase Upsilon + grave	1FEA
Uppercase Upsilon + acute	038E
Uppercase Upsilon + rough breathing	1F59
Uppercase Upsilon + rough breathing + grave	1F5B
Uppercase Upsilon + rough breathing + acute	1F5D
Uppercase Upsilon + rough breathing + circumflex	1F5F

---

## Omega

Lowercase Omega	03C9
Lowercase Omega + grave	1F7C
Lowercase Omega + acute	03CE
Lowercase Omega + circumflex	1FF6
Lowercase Omega + smooth breathing	1F60
Lowercase Omega + rough breathing	1F61
Lowercase Omega + smooth breathing + grave	1F62
Lowercase Omega + rough breathing + grave	1F63
Lowercase Omega + smooth breathing + acute	1F64
Lowercase Omega + rough breathing + acute	1F65
Lowercase Omega + smooth breathing + circumflex	1F66
Lowercase Omega + rough breathing + circumflex	1F67
Lowercase Omega + iota subscript	1FF3
Lowercase Omega + iota subscript + grave	1FF2
Lowercase Omega + iota subscript + acute	1FF4
Lowercase Omega + iota subscript + circumflex	1FF7
Lowercase Omega + iota subscript + smooth breathing	1FA0
Lowercase Omega + iota subscript + rough breathing	1FA1
Lowercase Omega + iota subscript + smooth breathing + grave	1FA2
Lowercase Omega + iota subscript + rough breathing + grave	1FA3
Lowercase Omega + iota subscript + smooth breathing + acute	1FA4
Lowercase Omega + iota subscript + rough breathing + acute	1FA5
Lowercase Omega + iota subscript + smooth breathing + circumflex	1FA6
Lowercase Omega + iota subscript + rough breathing + circumflex	1FA7
Uppercase Omega	03A9
Uppercase Omega + grave	1FFA
Uppercase Omega + acute	038F
Uppercase Omega + smooth breathing	1F68
Uppercase Omega + rough breathing	1F69
Uppercase Omega + smooth breathing + grave	1F6A
Uppercase Omega + rough breathing + grave	1F6B
Uppercase Omega + smooth breathing + acute	1F6C
Uppercase Omega + rough breathing + acute	1F6D
Uppercase Omega + smooth breathing + circumflex	1F6E
Uppercase Omega + rough breathing + circumflex	1F6F
Uppercase Omega + iota subscript	1FFC
Uppercase Omega + iota subscript + smooth breathing	1FA8
Uppercase Omega + iota subscript + rough breathing	1FA9
Uppercase Omega + iota subscript + smooth breathing + grave	1FAA
Uppercase Omega + iota subscript + rough breathing + grave	1FAB
Uppercase Omega + iota subscript + smooth breathing + acute	1FAC
Uppercase Omega + iota subscript + rough breathing + acute	1FAD
Uppercase Omega + iota subscript + smooth breathing + circumflex	1FAE

---

Uppercase Omega + iota subscript + rough breathing + circumflex
---

1FAF
------

### **Non-Combining Forms**

- This table gives the values of the non-combining diacritics.
- These characters do not combine with letters. For characters with these diacritics, use either the precomposed forms above or the combining forms (see Beta Code Quick Reference Guide).

Grave	1FEF
Acute	1FFD
Circumflex	1FC0
Smooth Breathing	1FBF
Rough Breathing	1FFE
Smooth breathing + grave	1FCD
Rough breathing + grave	1FDD
Smooth breathing + acute	1FCE
Rough breathing + acute	1FDE
Smooth breathing + circumflex	1FCF
Rough breathing + circumflex	1FDF
Iota subscript	1fbe
Diaeresis + grave	1FED
Diaeresis + acute	1FEE
Diaeresis +circumflex	1FC1

**Duplicate forms**

- Unicode has codepoints for Greek vowels with acute accents.
- In all instances the codepoint given in the table of precomposed forms above is to be used and the duplicate codepoints should be regarded as redundant.
- The following table gives the redundant codepoints first, followed by the correct codepoint.

	Duplicate Form:	Use:
Lowercase Alpha + acute	1F71	03AC
Uppercase Alpha + acute	1FBB	0386
Lowercase Epsilon + acute	1F73	03AD
Uppercase Epsilon + acute	1FC9	0388
Lowercase Eta + acute	1F75	03AE
Uppercase Eta + acute	1FCB	0389
Lowercase Iota + acute	1F77	03AF
Uppercase Iota + acute	1FDB	038A
Lowercase Omicron + acute	1F79	03CC
Uppercase Omicron + acute	1FF9	038C
Lowercase Upsilon + acute	1F7B	03CD
Uppercase Upsilon + acute	1FEB	038E
Lowercase Omega + acute	1F7D	03CE
Uppercase Omega + acute	1FFB	038F