

Combining marks on a path

The same label twice on the same curve: first spelled with the precomposed characters, then decomposed into letters and combining marks. Text on a path is placed cluster by cluster - a base and the marks hanging on it are one piece, turned once by the tangent - so the two spellings come out at the same place and the same size.



precomposed, above the curve

decomposed, below it

10 characters against 12, width 41.5444 mm against 41.5444 mm, path 179.5325 mm

Two characters more and the same width to the fourth decimal: a combining mark has an advance of zero, so nothing on the curve moves. The path steps by the width of the base and the marks ride along inside its own text object, which is where GPOS can still reach them.

-spacing counts glyphs, not clusters

Café Crème
Café Crème

at -spacing 2: 47.8944 mm against 49.3055 mm - 1.4111 mm apart, which is 4 points of extra gap, one per mark

The character spacing of PDF sits between every pair of GLYPHS, and a combining mark is a glyph. So the decomposed line is longer by one gap per mark - here two of them - on a straight baseline exactly as on a curve. Both lines are still centred on their path: -align asks textWidth, and textWidth counts the same gaps that are drawn. Where the two spellings must come out identical, letterspacing is the one option that has to be told which spelling it is looking at.

Check it yourself

```
qpdf --check 02.13-marks-on-a-path.pdf
```

```
qpdf --qdf --object-streams=disable 02.13-marks-on-a-path.pdf - | grep Tm
```

```
pdftotext 02.13-marks-on-a-path.pdf - | head -20
```