

Table 7-1 Objective classes & their corrections

	Spherical aberration	Chromatic aberration	Cost
Achromat	Corrected for 1 colour: green at about 550 nm	Corrected for two colours: blue (typically 486 nm) and red (656 nm)	1x – base cost for comparison (about £ 460 for a 10x/NA 0,25) (about £ 735 for a 40x/NA 0,65)
Semi-apochromat ('Fluorite' etc)	Corrected for 2 colours (blue and green)	Corrected for 2-3 colours (blue, green and red)	2-3x (about £ 1,460 for a 10x NA 0,30) (about £ 1,980 for a 40x/NA 0,75)
Apochromat	Corrected for 2-3 colours (blue, green and red)	Corrected for 4-5 colours (deep blue/UV, blue, green and red and near-IR*) Usually correction for 4 wavelengths, but in some special cases for near-IR also	5x (about £ 2,120 for a 10x NA 0,45) 8-10x (about £ 5,920 for a 40x/NA 0,95 Korr) (about £6,800 for a 40x/NA 1,3 oil imm)

All three classes of objective also have 'Plan' versions, which are corrected for field curvature.

Modern Zeiss objectives are fully colour corrected no longer for only 3 – 4 spectral lines, but for a full spectral range. This corresponds to a correction of up to 14 spectral lines.