The procedures employed to finish and polish a composite restoration are important for obtaining a successful aesthetic outcome. Unfortunately, clinicians frequently observe the formation of a “white line” at the margin of their restoration, at the junction between composite and tooth structure. One possible contributing factor to the formation of a white line is the finishing and polishing procedure used by the clinician. The clinical case below illustrates a technique which may be used to minimise the occurrence of the white line.

Patient with failed anterior restoration. Right lateral incisor is prepared for Class IV with labial enamel bevel. Wide and gradually tapering bevel has no abrupt end line which helps to improve the aesthetic integration of composite and tooth.

Completion of restoration placement using Filtek™ Supreme XT shades A1D and A2E, with a superficial layer of Grey Translucent shade.

Tooth is built to form without significant overcontouring. Medium and Fine grit 3M ESPE Soflex discs were used to refine the labial and interproximal contours.

12 fluted tungsten carbide finishing and shaping burs leave the composite surface relatively smooth with no visible scratches, unlike the surface often obtained with medium and fine grit diamonds.

Tungsten carbide burs rotate in a clockwise direction. Apply the bur to the composite first then move it towards the enamel.

Align the handpiece to ensure that the rotating bur meets the composite first and then the enamel.

Restoration with final shaping completed and with smooth surface suitable for polishing. Note the intact enamel-composite margin.

The clinician’s preferred choice of diamond, or silicon carbide high-shine polishers is applied to create the final lustre. Immediate post-operative appearance of finished restoration - there is no visible white line.

If you would like to receive a free copy of 3M ESPE Filtek™ Supreme XT “Clinical Tips & Tricks” booklet, please call Angela on 1800 010 029.