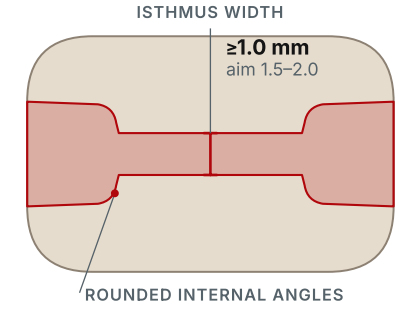
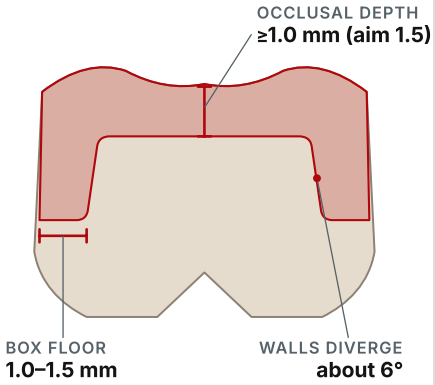
Inlay & Onlay Prep Guide

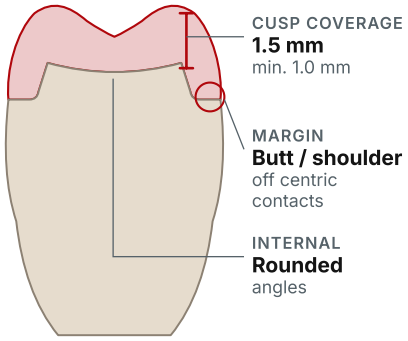
Values for IPS e.max all-ceramic inlays and onlays. Give the ceramic enough depth and width, flare the walls slightly and keep every internal angle rounded.



Inlay outline, occlusal view · schematic, not to scale



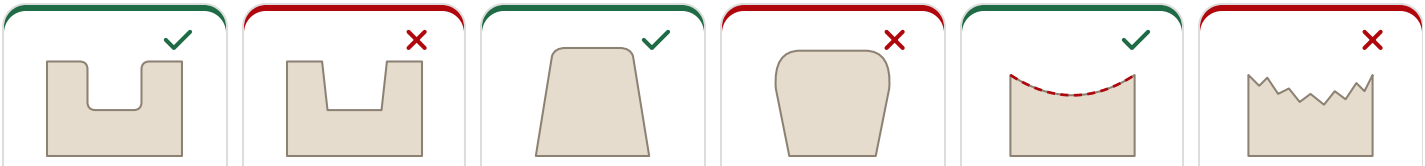
Inlay, mesiodistal section · schematic, not to scale



Onlay cusp coverage · schematic, not to scale

AREA	INLAY	ONLAY
Occlusal depth	At least 1.0 mm (aim 1.5 mm)	
Isthmus width	At least 1.0 mm (aim 1.5–2.0 mm)	—
Proximal box floor	1.0–1.5 mm wide	
Cusp coverage	—	1.5 mm (min. 1.0 mm)
Walls	Slightly divergent, about 6°; 100–120° between the proximal walls and the restoration's proximal surfaces	
Internal angles	Rounded	
Margins	Butt or shoulder; no slice-cuts or feather edges; keep margins off centric contacts	

Do & don't



Do Rounded internal angles, butt margins

Don't sharp internal angles

Do Slight taper, one path of insertion

Don't undercuts or parallel walls

Do Smooth, continuous margin

Don't ragged or ditched margin

Where sources differ

- Ivoclar's current e.max instructions give 1.0 mm minimum depth and isthmus; its older chairside guide recommends 1.5 mm depth and a 1.5–2.0 mm isthmus. Aim for the larger figures where the tooth allows.
- Cusp coverage: Ivoclar lists at least 1.0 mm in one document and 1.5 mm in another.
- These values are for IPS e.max. For our nano-zirconia reinforced resin option, ask us before you prep.

Based on: Ivoclar IPS e.max CAD instructions for use; Ivoclar chairside preparation guides for IPS e.max (2009, 2016).

> **General guidelines based on published manufacturer recommendations; contact Advanced Dental Laboratory for case-specific questions.**

Questions before you prep? Send the scan for a design review: info@adlny.com · 212.889.8812 · adlny.com/send-a-case/