

Restoration Selection and Preparation Guide

Restoration Type	PFM	Captek	Zirconia - Porcelain Layered	Zirconia - Full Solid [Posterior]	Zirconia - Full Solid [Anterior]	IPS e.Max - Monolithic [Posterior]	IPS e.Max - Porcelain Layered [Anterior]	Full Cast
Goals	Strength, Cost Variety (high noble, noble, base)	Sub-Gingival Response, Esthetics	Metal-Free, Strength, Esthetics	Metal-Free, Strength	Esthetics, Metal-Free, Strength (Available in shade A1, A2, B1, B2, C1, C2, D2 only)	Esthetics, Metal-Free, Strength	Esthetics, Metal-Free	Strength
Primary Applications	Single Crowns through long span bridges	Single Crowns, Bridges up to 3 units	Single Crowns and 3-6 unit bridges up to a 42mm span	Posterior Crowns, Bridges, Inlay, Onlay	Anterior Crowns, Bridges up to 3 units, Inlay, Onlay	Veneers, Crowns, Bridges up to 3 units, Inlay, Onlay	Veneers, Single Crowns, Inlay, Onlay	Single Crowns through long span bridges, Inlay, Onlay
Ideal Margin Preparation	<ul style="list-style-type: none"> • Chamfer • Bevel • Shoulder • Beveled Shoulder 	<ul style="list-style-type: none"> • Chamfer • Bevel • Shoulder • Beveled Shoulder 	<ul style="list-style-type: none"> • Chamfer • Shoulder 	<ul style="list-style-type: none"> • Chamfer • Shoulder 	<ul style="list-style-type: none"> • Chamfer • Shoulder 	<ul style="list-style-type: none"> • Chamfer • Shoulder 	<ul style="list-style-type: none"> • Chamfer • Shoulder 	<ul style="list-style-type: none"> • Feather Edge • Knife Edge • Chamfer • Bevel • Shoulder • Beveled Shoulder
Minimum Cervical Reduction	0.7mm	0.7mm	0.5mm	0.5mm	0.5mm	0.7mm	0.7mm	0.3mm
Minimum Facial/Buccal Reduction (To achieve prescribed shade)	1.2mm	1.2mm	1.0mm	0.5mm	1.0mm	1.0mm	1.0mm	0.3mm
Minimum Incisal/Occlusal Reduction (To achieve 0.3mm light occlusion)	1.0mm	1.0mm	1.0mm	1.0mm	1.0mm	1.0mm	1.0mm	0.6mm
Cementation Guidelines	Conventional cementation	Conventional cementation	Conventional or translucent adhesive (Zr cannot be etched)	Conventional cementation	Conventional zirconia cement with Resin Modified Glass Ionomer	Adhesive bonding or conventional cementation	Adhesive bonding or conventional cementation	Conventional cementation
Flexural Strength	1200 - 1400 MPa	1000 MPa	1100 - 1300 MPa	1100 - 1300 MPa	720 MPa	400 MPa	350 - 400 MPa	1200 - 1400 MPa
Restoration Composition	Au, Pd, or Ni/Cr alloy substructure with porcelain	88% gold (22k) composite metal with feldspathic porcelain	Zirconium oxide substructure with zirconia porcelain	Monolithic zirconia	Monolithic zirconia	Lithium disilicate	Lithium disilicate with porcelain	Au, Pd, or Ni/Cr alloy

*The substructures for PFM restorations must be a minimum of 0.3mm thick for sufficient strength. In order to achieve the prescribed shade, the porcelain layered surfaces of the restoration must be at least 1.2mm thick.

** The substructures of zirconia restorations must be a minimum of 0.5mm thick for sufficient strength. In order to achieve the prescribed shade, the porcelain layered surfaces of the restoration must be at least 1.0mm thick.