

IPS e.max[®] Lithium Disilicate

TECH SHEET

Strength. Durability. Esthetics.

IPS e.max is a lithium disilicate glass ceramic that has optimized translucency, durability and strength for full anatomical restorations. Available as a pressed ceramic (IPS e.max Layered) and as a CAD/CAM milled restoration (IPS e.max Monolithic), IPS e.max from Ivoclar is a versatile system that provides you with a complete range of restorations to meet all of your patient demands for minimally invasive dentistry.

IPS e.max lithium disilicate ceramic is our choice for single anterior/posterior crowns, 3-unit anterior bridges (bicuspid forward), veneers and inlays/onlays as it truly mimics the light refraction and natural translucency necessary for outstanding esthetic appearance. With two times the strength of the original IPS Empress and the maximum benefits of a monolithic structure, IPS e.max is the material of choice for minimally invasive esthetic dentistry.

MATERIAL PROPERTIES/INDICATIONS

IPS e.max Press and IPS e.max CAD are a high strength lithium disilicate glass ceramic with slightly different flexural strengths. IPS e.max CAD has a flexural strength of 360 MPa's and is indicated for single anterior/posterior crowns and inlays/onlays. IPS e.max Press, at 400 MPa's, is indicated for single anterior/posterior crowns, 3-unit anterior bridgework (bicuspid forward), inlays/onlays and ultra-thin veneers.

MONOLITHIC STRUCTURE/STRENGTH

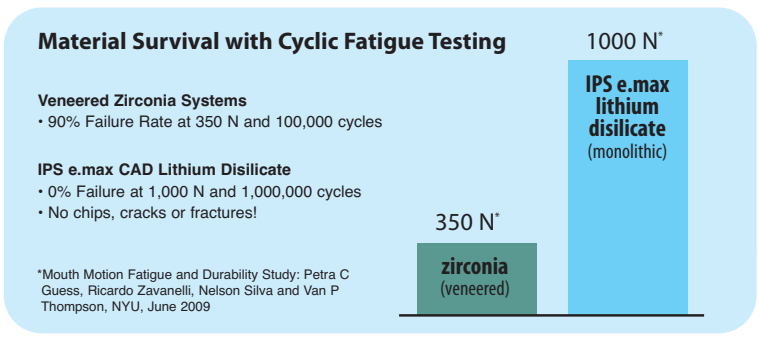
When fabricated to full-contour or in a monolithic state, IPS e.max is the most robust ceramic system tested to date.* Even with micro-layering, this system eliminates the typical chipping and fracturing found in traditional veneered restorations. Failures in zirconia and PFM veneered restorations oftentimes are the result of a very weak 90 MPa porcelain material having chewing forces exerted upon it. The 1,000 MPa zirconia or metal substructure remains intact but the failure of the layering porcelain is ultimately a failure of the restoration. With monolithic lithium disilicate, the work of mastication is being done on a 360-400 MPa material so the strength is homogenous throughout the entire restoration.



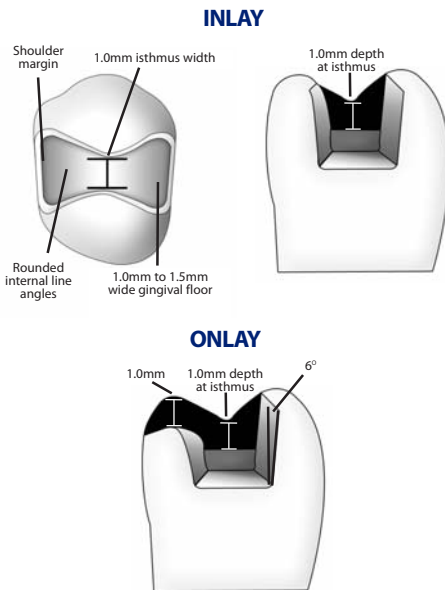
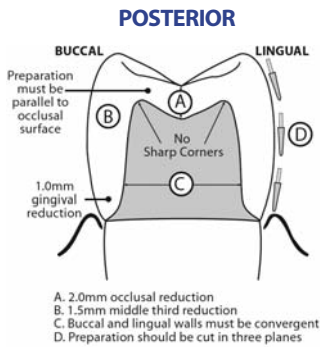
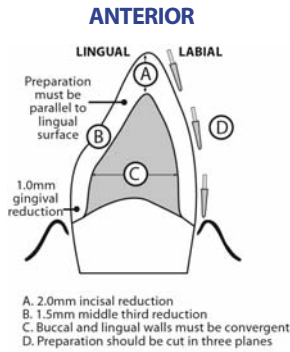
IPS e.max Monolithic



IPS e.max Layered



4 Year Clinical Performance
 The Dental Advisor, June 2010 Volume 27, No. 05 reported only 2.5% of the 236 IPS e.max restorations tracked over 4 years exhibited chipping and only 0.5% had fractured or needed replacement. 94% of the IPS e.max restorations received a five or excellent rating demonstrating superior quality. IPS e.max Press was highly recommended by The Dental Advisor.



IPS E.MAX ULTRA THIN VENEERS
Dentistry by Dr. Gary Radz of Denver, CO



ESTHETICS

IPS e.max lithium disilicate delivers the strength and the esthetics necessary to meet the highest esthetic demands of your patients. Featuring four levels of translucency (High Opacity, Medium Opacity, Low Translucency, and High Translucency), the system allows for design and application for any level of masking and translucent, vibrant esthetics.

PREPARATION GUIDELINES

The recommended preparation guidelines for IPS e.max lithium disilicate are similar to other restorative systems. A 1.0 mm rounded shoulder or chamfer margin with rounded line angles, facial reduction of 1.5-2.0 mm, 1.0-1.5 mm lingual contact clearance and standard reduction of 1.5 to 2.0 mm for occlusal surfaces is the norm.

ADJUSTMENTS/POLISHING

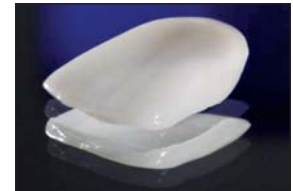
If adjustment is required, please seat (cement) the crown and then make adjustments. Use a fine diamond with water to keep the crown from overheating. Polish with a porcelain polishing wheel and diamond polishing paste.

CEMENTATION

The high strength of IPS e.max lithium disilicate offers dentists a choice of adhesively bonding or conventionally cementing their restorations. For maximum bond strength and in situations where adequate retention is not possible in the prep design (veneers and inlays/onlays), adhesive cementation is recommended (Multilink Automix adhesive resin cement from Ivoclar). Self-adhesion resin cements combine an easy conventional cementation technique, increased strength, low solubility, high-level radiopacity and light-cure capabilities. Self-adhesion resin cements are recommended in situations where a conventional cement would normally be used (SpeedCem self-adhesive resin cement from Ivoclar). For areas subgingival or when a dry field cannot be achieved, Ivoclar Vivadent recommends a hybrid glass ionomer cement system with less than 0.5 percent expansion.

IPS E.MAX ULTRA-THIN VENEERS

IPS e.max Press is quickly becoming our material of choice for ultra-thin, high-strength ceramic veneers. IPS e.max can be pressed to as thin as 0.3 mm for veneers, creating one of the strongest minimally invasive restorations available today. If sufficient space is present, a no-prep or minimal prep veneer can be provided that allows the clinician and the patient to benefit from non-invasive contouring or enameloplasty, usually without an injection or temporization.



The DAL Partial Prep Veneer is an evaluation-based system anchored in functional and esthetic design. Upon receipt of your case, one of our experienced technicians will mount your casts, determine any necessary prep or slight recontouring, and return the following communication tools to your office:

- Study model
- Complete diagnostic wax-up
- Matrix from the diagnostic wax-up
- Prep model (minor contours and any necessary prep areas are illustrated)
- Consultation sheet - tooth by tooth
- Fee estimate

Please refer to our Partial Prep Veneer Tech Sheet for complete details.

DENTAL ARTS LABORATORIES, INC.
PEORIA, IL • ST. LOUIS, MO • LINCOLNSHIRE, IL
SPRINGFIELD, IL • GALESBURG, IL • LANSING, IL
CORPORATE OFFICES: 241 NE PERRY AVENUE, PEORIA, IL 61603-3625 WWW.DENTALARTSLAB.COM

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