

Tearing at the Margin

Visual Appearance: Rip, or visible tearing on the margin of the preparation.

Result: Short crown margins and/or open margins.

CAUSE	SOLUTION
Expired impression material.	Check expiration date of impression material.
Inadequate mix.	Bleed before applying mix tip to ensure even dispensing. Use proper mix tip. Ensure mixing instructions are followed and materials have a streak-free appearance.
Insufficient retraction.	Displace tissue to allow the impression material to access prepared area. Consider two-cord retraction. Leave pilot cord in the sulcus when taking the impression. Use impression material with sufficient tear resistance.

Continued



Poor Retraction — Insufficient Tear Resistance

CAUSE

SOLUTION

For Polyether Materials

Substances with $\text{pH} < 4$ inhibit setting reaction, most commonly by contact with acidic retraction materials and hemostatic agents containing epinephrine or ferric sulfates.

Use retraction materials with a $\text{pH} \geq 4$.

Select retraction materials and hemostatic agents that do not contain these chemicals.

Rinse, remove, and dilute hemostatic solution from the preparation with water spray and suction. Dry before taking the impression.

For Vinyl Polysiloxane Materials

Sulfur inhibition due to contact of latex gloves with tissue/tooth/retraction material or impression material.

Wear gloves proven not to contain traces of sulfur.

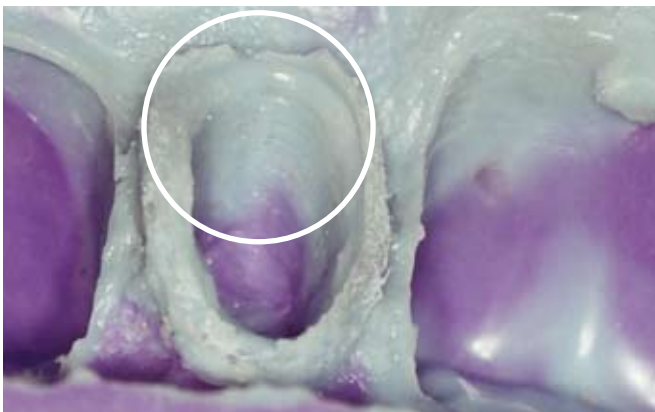
If contamination is suspected, scrub affected area with diluted hydrogen peroxide.

Residues from custom temporary or provisional cements (acrylics) present.

Do not use impressions already used to fabricate the temporary restoration.

Fabricate the temporary crown or bridge after final impression has been made.

Remove air-inhibited layer on the exposed surface with an alcohol wipe before making final impression.



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3M ESPE

Making Better Impressions

Expertise™

Trouble

Shooting

Guide