

Project Design Specification (PDS)

Medical Skin Prosthesis Adherent Interface System Project Design Specifications (PDS)*
Lindsey Carlson, Nicole Daehn, Matt Kudek, Paul Schildgen, Chris Walker

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Function: To determine an alternative method of effectively mixing components of a platinum cured prosthetic adhesive. This device should be low cost, compact, minimize waste, and allow for easy and precise application.

Client Requirements:

- Lightweight
- Compact Size
- Effective mixing
- Minimize waste and cost for patients
- Proper proportions of components

Design requirements:

Physical and Operational Characteristics

Performance Requirements: The device should be easily used (not too hard to push or mix). The product should be able to set the amount of adhesive to be used for each patient. The product should keep the components separated until needed. This method should also effectively the two components of the adhesive to allow the chemical reaction to go to completion.

Safety: Safe to dispose in garbage.

Accuracy and Reliability: Should mix the components thoroughly before it is dispensed on skin or prosthetic. The dispensing tip should allow precise application directly to prosthesis after mixing.

Shelf-life: For the clip pack, the plastic pouch should be disposable. For the double syringe, the device should be reusable without wasting the adhesive contents.

Operating environment: Feasible for at-home or public use.

Ergonomics: All patients' should be able to easily mix the adhesive.

Size: Both designs should be small enough to transport in a pocket or purse.

Weight: Lightweight.

Materials: Plastic tubing or plastic sheets.

Production Characteristics

Quantity: One product for each design.

Target Product Cost: Not specified.

Miscellaneous

Customer: Be able to be used for patient's preferred adhesive product.

Competition: No device meeting the customer's specifications has been developed yet.