

Impression Materials

Material	Characteristics	Advantages	Disadvantages
Alginate	<ul style="list-style-type: none"> • Irreversible hydrocolloid • Mucodisplasive 	<ul style="list-style-type: none"> • Easy to use • Low cost • Comfortable for the patient • Hydrophilic – less sensitive to moisture • The powder to water ratio can be altered to suit the clinician's preference for viscosity 	<ul style="list-style-type: none"> • Poor dimensional stability due to syneresis and imbibition of water • Low tear resistance
Polyvinyl siloxane (PVS)	<ul style="list-style-type: none"> • Addition-reaction silicone elastomer • Mucodisplasive and Mucostatic impressions possible 	<ul style="list-style-type: none"> • Range of viscosities available • Long shelf life • Good surface detail reproduction • Good tear strength • Low setting shrinkage • Good dimensional stability • Good elasticity - minimal permanent deformation upon removal from undercut regions • Automated mixing machines available – minimises air bubbles 	<ul style="list-style-type: none"> • Hydrophobic – poor moisture control will reduce the accuracy of the impression • May cause breakage of the cast when pouring up • Costly
Polyether	<ul style="list-style-type: none"> • Non-aqueous elastomer • Mucostatic impressions 	<ul style="list-style-type: none"> • Hydrophilic – less sensitive to moisture • 5 minute setting time • Long shelf life • Accurate • Low setting shrinkage • Good surface detail reproduction • Good dimensional stability • Good elasticity - minimal permanent deformation upon removal from undercut regions • Automated mixing machines available – avoids air bubbles 	<ul style="list-style-type: none"> • Single viscosity available • May cause breakage of the cast when pouring up • Occasional allergies • Difficult to remove from facial hair and adheres to clothing • Bad taste • Costly