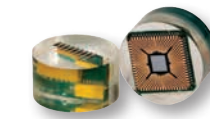


Technical Information Guide: Castable Mounting Compounds

CASTABLE MOUNTING COMPOUNDS SELECTION GUIDE - BASED ON CURE TIME & MATERIAL

	10 Minutes	20 Minutes	90 Minutes	6 Hours	9 Hours
Ceramics	VariDur™ 200 Hard Acrylic	VariDur 3003 Hard Acrylic, Very Low Shrinkage	EpoHeat™ 2 Heat curing, Low Shrinkage, Low Viscosity	EpoxCure™ 2 Low Shrinkage	EpoThin™ 2 Fills Very Small Holes; Low Shrinkage; Transparent
Steels	VariDur 200 Hard Acrylic	VariDur 3003 Hard Acrylic, Very Low Shrinkage	EpoHeat™ 2 Heat curing, Low Shrinkage, Low Viscosity	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Plated Layers/ Thermal Sprays	SamplKwick™ Very Fast Translucent Acrylic, Some Shrinkage		EpoHeat™ 2 Heat curing, Low Shrinkage, Low Viscosity	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Aluminum Copper/ Brass	SamplKwick Very Fast Translucent Acrylic, Some Shrinkage		EpoKwick™ Fast Epoxy	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Printed Circuit Boards	SamplKwick Very Fast Translucent Acrylic, Some Shrinkage		EpoKwick Fast Epoxy	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Plastics	SamplKwick Very Fast Translucent Acrylic, Some Shrinkage		EpoColor™ Dye-Enhanced Epoxy	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Minerals	VariDur 200 Hard Acrylic	VariDur 3003 Hard Acrylic, Very Low Shrinkage	EpoColor Dye-Enhanced Epoxy	EpoxCure 2 Low Shrinkage	EpoThin 2 Fills Very Small Holes; Low Shrinkage; Transparent
Glass	VariDur 200 Hard Acrylic	VariDur 3003 Hard Acrylic, Very Low Shrinkage	EpoHeat 2 Heat curing, Low Shrinkage, Low Viscosity	EpoxCure 2 Low Shrinkage	



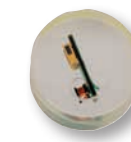
EpoxCure 2



EpoHeat 2



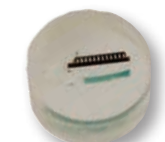
EpoThin 2



EpoKwick



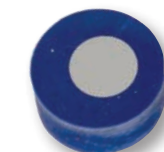
EpoColor



SamplKwick



VariDur 200



VariDur 3003



SamplKup



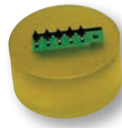


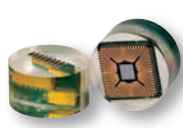


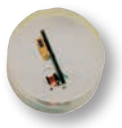



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Technical Information Guide: Final Polishing & Preparation Guides

CASTABLE MOUNTING COMPOUNDS - COMPARISON

	Acrylic					Epoxy				
	SamplKwick™	VariKleer™	VariDur 10	VariDur 200	VariDur 3000	EpoxiCure™ 2	EpoThin™ 2	EpoHeat™ 2	EpoKwick™	EpoColor™
										
	Translucent, general purpose acrylic system	Clearest acrylic (when cured under pressure)	Transparent, low shrinkage, low odor acrylic system	Filled low shrinkage, abrasion resistant acrylic	Best Edge Retention highest hardness, lowest shrinkage acrylic	Transparent general purpose epoxy system, low shrinkage	Transparent, low viscosity epoxy for filling pores	Lowest viscosity and fastest curing epoxy when heated	Clear, fastest curing epoxy system	Dye-enhanced epoxy to highlight specimen voids under polarized light
Mix Ratio (Volume)	2 Parts Powder: 1 Part Liquid Hardener	2 parts Powder: 1 Part Liquid Hardener	2 parts Powder: 1 Part Liquid Hardener	2 parts Powder: 1 Part Liquid Hardener	3 parts Powder: 2 Parts Liquid A: 1 Part Liquid B	4 parts resin: 1 Part Hardener	2 parts resin: 1 Part Hardener	4 parts resin: 1 Part Hardener		
Mix Ratio (weight)						100 parts resin: 23 Parts hardener	100 parts resin: 45 Parts hardener	100 parts resin: 20.6 parts hardener	5 parts resin: 1 part hardener	4 parts resin: 1 part hardener
Cure Time:	8 minutes	15 minutes	8 minutes	8 minutes	18 minutes	6 hours	9 hours	90 minutes at 55°C	90 minutes	6 hours
Peak Exotherm	79°C	100°C	95°C	80°C	106°C	40°C	30°C	170°C	145°C	145°C
Shrinkage	High	High	High	Medium	Lowest	Medium	Medium	Medium	Medium	Medium
Pot Life:	<5 minutes	<5 minutes	<5 minutes	<5 minutes	<5 minutes	30 minutes	60 minutes	180 minutes	10 minutes	30 minutes
Shore D Hardness:	~80	~80	~80	~85	~90	~80	~75	~78	~82	~82
Additional Equipment	Pressure Pot Required for best clarity					Vacuum optional for filling voids	Vacuum optional for filling voids	Lab oven required for curing		Vacuum optional for filling voids

Castable Mounting Compounds Troubleshooting Guide

Defect	Probable Cause	Suggested Remedy
Non-Curing	Expired resin and/or hardener; Wrong resin - to - hardener ratio	Measure weights of resin and hardener; after prescribed time, and it has not hardened, heat the mold, liquid and specimen to 50 °C (120 °F) to force curing; check age before using resin and hardener
Slow Curing	Incomplete mixing; too little hardener used; curing at too low a temperature	Mix thoroughly; measure weights of resin and hardener; place in a warm area*
Rapid Curing	Too much hardener; curing at too high a temperature; mold size too large (excessive resin volume)	Measure weights of resin and hardener; mix smaller quantities; increase air circulation; place in a cooler place
Gas Tunnels	Excessive hardener used; mold size too large (excessive resin volume); use of a low thermal conductivity mold	Measure weights of resin and hardener; increase air circulation; use higher thermal conductivity molds
Mount Stuck in Mold	Did not use mold release agent	Apply Silicon Mold Release or Release Agent to interior surfaces of mold
Solvent Softening	Poor resistance to solvents; mount may not be fully cured	Heat the mold, liquid and specimen to 50 °C (120°F) to force curing
Excessive Shrinkage	Polymerization is too fast; too much hardener used; wrong resin selected	Use an epoxy rather than an acrylic; use a slow curing epoxy; add FLAT-EDGE FILTER particles; use the correct resin - to - hardener ratio

*Placing in oven at 120 °F (50 °C) for up to two hours may accelerate the curing of epoxies