Industrial Polymers Corporation

ProtoCast 80R

Technical Data

Revision date: 10/14

DESCRIPTION	ProtoCast 80-R is a very low viscosity, rapid setting, and rigid urethane compound. This system will cure quickly to a hard, tough impact resistant casting. ProtoCast 80-R is non-sensitive to moisture after cure and will readily bond to itself, as stage pours are required. The 1:1, by volume, mix ratio makes for easy hand or machine mix. ProtoCast 80-R is recommended in applications where a "thermoplastic feel" is desired.		
APPLICATION AND MIX RATIO	Mix 100 parts A and 100 parts B by volume or 100 parts A to 85 parts B by weight with a flat metal spatula. Do not use round stir sticks or wood to mix. Do not mix in paper or wood containers. Pour immediately into prepared mold.		
WORKING PROPERTIES	Mix Ratio By weight		100 parts A/ 87 part B
	Mix Ratio By volume		100 parts A/ 100 parts B
	Viscosity @ 72°F (A Side)		50 CPS
	Viscosity @ 72°F (B Side)		100-150 CPS
	Viscosity @ 72°F (Mixed)		75-100 CPS
	Color	Part A:	Clear Amber
	Color	Part B:	Translucent
	Color	Mixed:	White
	Working Life @ 72°F		3-5 minutes
	Demold Time* @ 72°F		10-15 minutes
	Complete Cure @ 72°F		2-3 hours
	* Set time and Demold time depends on temperature and relative humidity.		
PHYSICAL PROPERTIES	Specific Gravity: (Part A)		1.10
	Specific Gravity: (Part B)		.98
	Specific Gravity: (Mixed)		1.02
	Weight/Gallon Part A		9.16 lbs.
	Weight/Gallon Part B		7.93 lbs.
	Weight/Gallon Mixed		8.55 lbs.
	Cubic inch per lb. of product		27.01 in^3/lb.
	Hardness @ 72° F	ASTM 2240-85	60-70 Shore D
	Tensile Strength	ASTM D-412 die C	5,200 psi
	Linear Shrinkage	ASTM D2566	.05%
	Deflection Temperature	ASTM D758	135°F
	Machinability		Excellent
CLEAN UP	Dispose of all empty Protocast 80R component containers in accordance with local, state and federal regulations. Empty component containers can be rendered non-hazardous by rinsing the containers with a small amount of mixed material and allowing the solvents to evaporate. The containers will then contain non-hazardous cured urethane.		
STORAGE AND SHELF LIFE	Protocast 80R containers should be stored in a cool dry area that is protected from direct sunlight and moisture. Storage temperatures should not exceed 80°F. The shelf life of factory sealed containers stored under these conditions is six (6) months.		
SHIPPING CLASS	Class 55 Non-hazardous		