Industrial Polymers Corporation

ProtoCast 410

Technical Data

Revision date: 10/14

DESCRIPTION	Protocast 410 is a very low viscosity, rapid setting, and rigid urethane compound. This system will cure quickly to a hard, tough impact resistant casting. Protocast 410 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 410 is recommended in applications where a "thermoplastic feel" is desired, not "brittle" in thin walled parts.		
FEATURES	Low viscosity High strength and durometer Rapid setting		
PHYSICAL 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)		330 CPS
	Viscosity @ 72°F (B Side)		1040 CPS
	Viscosity @ 72°F (Mixed)		685 CPS
	Color	Part A:	Clear Amber
	Color	Part B:	Black
	Color	Mixed:	Black
	Working Life @ 72°F		2-3 minutes
	Demold Time* @ 72°F		15 minutes
	* Set time and Demold time depends on temperature and relative humidity.		
WORKING PROPERTIES	Specific Gravity: (Part A)		1.18
	Specific Gravity: (Part B)		1.03
	Specific Gravity: (Mixed)		1.11
	Weight/Gallon Part A		9.87 lbs.
	Weight/Gallon Part B		8.60 lbs.
	Weight/Gallon Mixed		9.24 lbs.
	Cubic inch per lb. of product		25.00 in^3/lb.
	Hardness @ 72° F	ASTM 2240-85	75-85 Shore D
CLEAN UP	Equipment must be cleaned immediately after use to prevent buildup of cured urethane on internal parts of equipment. Solvents, such as toluene or M.E.K. works well for cleaning soiled spray equipment. As soon as urethane spraying is completed, solvent should be pumped through the pump, hose and spray gun until solvent comes out clear. Dispose of all empty Protocast 410 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 410 components are shipped from the factory in sealed containers that are purged with dry nitrogen. The containers should be kept tightly sealed and stored in a cool and 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 months. Containers that have been opened should be resealed immediately after material has been removed in order to prevent moisture contamination and solvent evaporation. Resin component containers should be purged with dry nitrogen if the contents are not used within 24 hours after opening.		
SHIPPING CLASS	Class 55 Non-hazardous		