Ultralloy™ 50

Thermoplastic

Hapco Inc.

Message:

The ULTRALLOY series of liquid molding compounds are tough, fast cycling, low cost, and easy to use. ULTRALLOY is designed to be used with Liquid Molding, open casting, pressure casting, or vacuum casting processes. ULTRALLOY can be used with silicone, epoxy, urethane, polyester, or aluminum molds. Low cost molds and fast cycle times are two key attributes of ULTRALLOY.
ULTRALLOY is available in several series. Each series has different products with different physical properties. Properties such as elongation, tensile strength, and modulus of elasticity can be selected to mold parts with the correct physical characteristics. Choose the ULTRALLOY material with the exact properties you need, or that are required to meet specifications.
ULTRALLOY is available in opaque white, clear/transparent, and in fire retardant (UL 94V-0) versions. Custom coloring can be achieved by pigmenting ULTRALLOY with Hapco's easy to mix color dispersions. Both opaque and translucent color dispersions are available.
ULTRALLOY can be molded in inexpensive molds, reducing total part cost, for short run programs.
ULTRALLOY is made for prototypes and short runs of plastic parts. ULTRALLOY fills the need for low cost, high performance parts, in volumes less than 10,000 parts per year.
ULTRALLOY 40 & 50 SERIES
A series of general purpose Liquid Molding Compounds with low moisture sensitivity. Ultralloy 40 and 50 Series can be open cast, pressure cast, or vacuum cast. The products are natural white and are available in varying physical properties.

General Information	
Features	Fast Molding Cycle
	Good Toughness
	Low Moisture Absorption
	Low Viscosity
Uses	Agricultural Applications
	Housings
	Prototyping
	Thin-walled Parts
	Toys
Appearance	White
Forms	Liquid
Processing Method	Casting
	Vacuum Casting

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm³	ASTM D4669
Molding Shrinkage - Flow	0.050 to 0.30	%	ASTM D2566
Weight - per cubic inch	18	g	
Gel Time [1] (25°C)	20.0	min	ASTM D2971
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	76		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**

Tensile Modulus	862	MPa	ASTM D638
Tensile Strength	39.6	MPa	ASTM D638
Tensile Elongation (Break)	13	%	ASTM D638
Flexural Modulus	1320	MPa	ASTM D790
Flexural Strength	54.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	> 110	J/m	ASTM D256
Unnotched Izod Impact	> 110	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	60.0	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Part A	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100		
Part B	Mix Ratio by Weight: 100, Mix Ratio by Volume: 120		
Thermoset Mix Viscosity [2] (25°C)	240	cP	ASTM D4878
Demold Time (21°C)	240 to 360	min	Internal Method
NOTE			
1.	100 g		
2.	Range: 190 to 290		

Recommended distributors for this material

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