Ultralloy™ 304-60

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 300 SERIES
A series of clear, flame retardant (UL94 V-O), Liquid Molding Compounds. These products have a hardness of 85D and are fairly stiff with a flexural strength of over 13,000 psi. These materials are easily pigmented and available in gel times ranging from 8.5 to 60 minutes.

General Information	
Features	Fast Molding Cycle
	Flame Retardant
	Good Toughness
	Low Viscosity
Uses	Agricultural Applications
	Housings
	Prototyping
	Thin-walled Parts
	Toys
Appearance	Clear/Transparent
Forms	Liquid
Processing Method	Casting
	Vacuum Casting

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm³	ASTM D4669
Molding Shrinkage - Flow	0.10 to 0.40	%	ASTM D2566
Weight - per cubic inch	14	g	
Gel Time [1] (25°C)	1.0	hr	ASTM D2971
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	85		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**

Tensile Modulus	1540	MPa	ASTM D638
Tensile Strength	73.1	MPa	ASTM D638
Tensile Elongation (Break)	9.0	%	ASTM D638
Flexural Modulus	2520	MPa	ASTM D790
Flexural Strength	95.8	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	30	J/m	ASTM D256
Unnotched Izod Impact	480	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	65.0	°C	ASTM D648
Flammability	Nominal Value		Test Method
Flame Rating	V-0		UL 94
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: 110		
Thermoset Mix Viscosity [2] (25°C)	250 to 350	cP	ASTM D4878
Demold Time (21°C)	960 to 1400	min	Internal Method
NOTE			
1.	100 g		
2.	Range: 250 to 350		

Recommended distributors for this material

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