# Tuffalloy™ 4275

# Thermoplastic

Hapco Inc.

# Message:

TUFFALLOY 4270 is a series of Liquid Molding Compounds with thermoplastic properties such as high impact, high heat distortion, and low viscosity. This unique chemistry developed by Hapco to meet today's market demands for prototype and low production parts needs.

THE TUFFALLOY 4270 Series are available in (4) speeds.

The user has the ability to use different speeds of TUFFALLOY 4270, typically using a slower speed initially and increasing to a fast set, 1 minute working life

#### PROCESSING:

TUFFALLOY 4270 Series can be pressure cast, vacuum cast, or open cast.

For best results, TUFFALLOY 4274/75 should be used with Hapco's metering/dispensing equipment, RAPIDFIL, MINI FIL, and RAPIDSHOT.

General Information					
Features	Fast Molding Cycle High Heat Resistance				
					High Impact Resistance
	Low Viscosity				
Uses	Automotive Under the Hood				
	Closures				
	Prototyping				
	Tubing				
Appearance	Cream				
Forms	Liquid				
Processing Method	Casting				
	Vacuum Casting				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.13	g/cm³	ASTM D4669		
Molding Shrinkage - Flow	0.30 to 1.2	%	ASTM D2566		
Weight - per cubic inch	19	g			
Gel Time <sup>1</sup> (25°C)	1.0	min	ASTM D2971		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore D)	79 to 89		ASTM D2240		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	2820	MPa	ASTM D638		
Tensile Strength	79.3	MPa	ASTM D638		

%

MPa

MPa

ASTM D638

ASTM D790

ASTM D790

7.0

2850

98.6

Tensile Elongation (Break)

Flexural Modulus

Flexural Strength

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	80	J/m	ASTM D256
Unnotched Izod Impact	> 110	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	90.0	°C	
1.8 MPa, Unannealed	81.0	°C	
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: 85, Mix Ratio by Volume: 100		
Thermoset Mix Viscosity <sup>2</sup> (25°C)	250 to 350	сР	ASTM D4878
Demold Time (21°C)	5.0 to 12	min	Internal Method
NOTE			
1.	100 g		
2.	Range: 250 to 350		

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