# STERalloy<sup>™</sup> FDG 2056

### Thermoplastic

#### Hapco Inc.

#### Message:

STERalloy FDG is the first Liquid Molding Polymer Alloy Series that has been specifically designed for food and drug applications. All of the products in the STERalloy FDG Series exhibit unique physical and chemical properties and have been used in numerous applications where biocompatibility is required. Key Advantages: Approvable Materials Wide range of hardnesses **ROHS** compliant Very high physical properties Low moisture sensitivity Easy to use The food, drug, pharmaceutical, wine, beer, juice, dairy, hospital equipment, and prosthetic industries are just some examples of applications that utilize special products such as STERalloy FDG. STERalloy FDG Elastomeric Series: various hardness elastomers, shore 20A - 72D clear in color available in 2 speeds - fast and slow STERalloy FDG Rigid Series: rigid, tough polymer alloy plastics high heat distortion high physical properties

General Information					
Features	Food Contact Acceptable				
	Good Processability				
Uses	Filtration Media				
	Food Containers				
	Medical/Healthcare Applications				
	Non-specific Food Applications				
	Pharmaceuticals				
	Prosthetics				
RoHS Compliance	RoHS Compliant				
Appearance	Opaque				
Forms	Liquid				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.16	g/cm³	ASTM D4669		
Molding Shrinkage - Flow	0.10 to 0.30	%	ASTM D2566		
Weight - per cubic inch	19	g			
Gel Time <sup>1</sup> (25°C)	16.0 to 20.0	min	ASTM D2971		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore A)	50 to 60		ASTM D2240		

NOTE     100 g					
Tensile Elongation (Break)950%ASTM D638ElastomersNominal ValueUnitTest MethodTear Strength 221.0kN/mASTM D624ImpactNominal ValueUnitTest MethodNotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256Thermoset ComponentsNominal ValueUnitTest MethodPart AMix Ratio by Weight: 100, Mix Ratio by Volume: 100Test MethodPart BMix Ratio by Weight: 400, Mix Ratio by Volume: 400ASTM D4878Demold Time (21°C)240 to 360minInternal MethodNOTE1.100 gInternal Method	Mechanical	Nominal Value	Unit	Test Method	
ElastomersNominal ValueUnitTest MethodTear Strength 221.0kN/mASTM D624ImpactNominal ValueUnitTest MethodNotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256ThermosetNominal ValueUnitTest MethodThermoset ComponentsVolume: 100Test MethodPart AMix Ratio by Weight: 100, Mix Ratio by Volume: 100Volume: 400Thermoset Mix Viscosity (25°C)4500cPASTM D4878Demold Time (21°C)240 to 360minInternal MethodNOTE100 g100 g100 g100 g	Tensile Strength	4.48	MPa	ASTM D638	
Tear Strength 221.0kN/mASTM D624ImpactNominal ValueUnitTest MethodNotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256ThermosetNominal ValueUnitTest MethodThermoset ComponentsNoix Ratio by Weight: 100, Mix Ratio by Volume: 100Test MethodPart AMix Ratio by Weight: 100, Mix Ratio by Volume: 100Thermoset Mix Viscosity (25°C)Part BMix Ratio by Weight: 400, Mix Ratio by Volume: 400Internal MethodDemold Time (21°C)240 to 360minInternal Method1.100 gInternal MethodInternal Method	Tensile Elongation (Break)	950	%	ASTM D638	
ImpactNominal ValueUnitTest MethodNotched Izod ImpactNo BreakASTM D256Unnotched Izod ImpactNo BreakASTM D256ThermosetNominal ValueUnitTest MethodThermoset ComponentsTest MethodImpactPart AMix Ratio by Weight: 100, Mix Ratio by Volume: 100ImpactPart BMix Ratio by Weight: 400, Mix Ratio by Volume: 400ImpactThermoset Mix Viscosity (25°C)4500cPASTM D4878Demold Time (21°C)240 to 360minInternal MethodNOTE100 gImpactImpact	Elastomers	Nominal Value	Unit	Test Method	
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Unnotched Izod Impact   No Break   ASTM D256     Thermoset   Nominal Value   Unit   Test Method     Thermoset Components   Mix Ratio by Weight: 100, Mix Ratio by Volume: 100   Impact A     Part A   Mix Ratio by Weight: 400, Mix Ratio by Volume: 400   Impact A     Thermoset Mix Viscosity (25°C)   4500   cP   ASTM D4878     Demold Time (21°C)   240 to 360   min   Internal Method     NOTE   1.   100 g   Impact A   Impact A	Impact	Nominal Value	Unit	Test Method	
Thermoset   Nominal Value   Unit   Test Method     Thermoset Components   Thermoset Components   Image: Component Structure Struct	Notched Izod Impact	No Break		ASTM D256	
Thermoset Components   Mix Ratio by Weight: 100, Mix Ratio by Volume: 100     Part A   Mix Ratio by Weight: 400, Mix Ratio by Volume: 400     Part B   Mix Ratio by Weight: 400, Mix Ratio by Volume: 400     Thermoset Mix Viscosity (25°C)   4500   cP   ASTM D4878     Demold Time (21°C)   240 to 360   min   Internal Method     NOTE   1.   100 g   100 g	Unnotched Izod Impact	No Break		ASTM D256	
Part AMix Ratio by Weight: 100, Mix Ratio by Volume: 100Part BMix Ratio by Weight: 400, Mix Ratio by Volume: 400Thermoset Mix Viscosity (25°C)4500cPASTM D4878Demold Time (21°C)240 to 360minNOTE1.100 g	Thermoset	Nominal Value	Unit	Test Method	
Part B   Mix Ratio by Weight: 400, Mix Ratio by Volume: 400     Thermoset Mix Viscosity (25°C)   4500   cP   ASTM D4878     Demold Time (21°C)   240 to 360   min   Internal Method     NOTE   1.   100 g   100 g	Thermoset Components				
Thermoset Mix Viscosity (25°C)   4500   cP   ASTM D4878     Demold Time (21°C)   240 to 360   min   Internal Method     NOTE   Internal Method   Internal Method     1.   100 g   Internal Method	Part A	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100			
Demold Time (21°C) 240 to 360 min Internal Method   NOTE 1.00 g	Part B	Mix Ratio by Weight: 400, Mix Ratio by Volume: 400			
NOTE     100 g	Thermoset Mix Viscosity (25°C)	4500	cP	ASTM D4878	
1. 100 g	Demold Time (21°C)	240 to 360	min	Internal Method	
	NOTE				
	1.	100 g			
	2.	Die C			

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